R01-18-C-002

November 15, 2017

Mr. Frank Gardner
EPA Region 1
5 Post Office Square
Suite 100, Mail Code: OSRR7-2
Boston, MA 02109-3912

Dear Mr. Gardner,

Please accept this application from the City of Bristol, CT for a FY 2018 Brownfield Cleanup Grant for the single site cleanup of a parcel known as 894 Middle Street, which is owned by the City after being acquired through tax foreclosure. The amount of $200,000.00 is being requested. The 17-acre parcel is contaminated with hazardous substances, including PCBs.

The Project Director for this Cleanup Grant will be Dawn Leger, Ph.D., Grants Administrator for the City of Bristol; her office is located in the Bristol Development Authority, Bristol City Hall, 111 North Main St., Bristol, CT 06010; phone number, 860-584-6191 and email, dawnleger@bristolct.gov. The Chief Executive of the City of Bristol is Mayor Ellen Zoppo-Sassu, who can be reached at Bristol City Hall, 111 North Main St., Bristol, CT 06010; phone number, 860-584-6250 and email, mayorsoffice@bristolct.gov.

The population of Bristol, CT is 60,554 (U.S. Census Bureau 2011-2015 American Community Survey 5-Year Estimates). At the time of the ACS, the City had a 10.4% poverty rate. None of the "Other Factors" from Appendix 3 (attached) are applicable to Bristol, CT.

A letter from the CT State Department of Energy and Environmental Protection acknowledging the City of Bristol's plan to engage in cleanup activities at 894 Middle Street is attached.

Thank you for your consideration of this application. Please contact us if you need additional information.

Sincerely,

Ellen Zoppo-Sassu

Ellen Zoppo-Sassu
Mayor

Appendix 3
Cleanup Other Factors Checklist

Name of Applicant: BRISTOL, CT

Please identify (with an ***x***) which, if any of the below items apply to your community or your project as described in your proposal. To be considered for an Other Factor, you must include the page number where each applicable factor is discussed in your proposal. EPA will verify these disclosures prior to selection and may consider this information during the selection process. If this information is not clearly discussed in your narrative proposal or in any other attachments, it will not be considered during the selection process.

Other Factor	**Page #**
None of the Other Factors are applicable.	X
Community population is 10,000 or less.	
The jurisdiction is located within, or includes, a county experiencing "persistent poverty" where 20% or more of its population has lived in poverty over the past 30 years, as measured by the 1990 and 2000 decennial censuses and the most recent Small Area Income and Poverty Estimates.	
Applicant is, or will assist, a federally recognized Indian tribe or United States territory.	
Target brownfield sites are impacted by mine-scarred land.	
Applicant demonstrates firm leveraging commitments for facilitating brownfield project completion, by identifying in the proposal the amounts and contributors of resources and including documentation that ties directly to the project.	
Applicant is a recipient of an EPA Brownfields Area-Wide Planning grant.	

Bristol CT – 894 Middle Street NARRATIVE PROPOSAL

1. COMMUNITY NEED

a. Target Area and Brownfields

1. Community and Target Area Descriptions

After 23 years of effort, the most contaminated site in the entire city of 60,000 people is on the verge of remediation and reuse. The City and State have arranged 85% of the funds required for cleanup and this grant would make it happen.

The City-owned brownfield property at 894 Middle Street has been the subject of several environmental assessments funded by US Environmental Protection Agency (US EPA) and the CT Dept. of Economic and Community Development (DECD) with supplemental funding from the City of Bristol. The City was awarded a $1.3 million grant from DECD in 2016 to clean the parcel, which is contaminated with polychlorinated biphenyls (PCBs), metals, and petroleum hydrocarbons. The 17.17-acre site is located on an important gateway to the City, which has high vehicular traffic; directly across the street from the world headquarters of ESPN, which employs more than 4,200 people; at the entrance to Lake Compounce Amusement Park, which has over 750,000 visitors each year; and which represents a substantial economic development opportunity for the City. The parcel has frontage on Middle Street (CT Rte. 229) and Enterprise Drive; it is adjacent to 229 Technology Park (an industrial park owned by the City), the City's landfill, and undeveloped land in the Town of Southington, a small portion of which is also contaminated and is included in planned cleanup and wetlands restoration. On the other side of Enterprise Drive, two large preschool facilities, one of which operates programs for children of ESPN employees, are the population most at risk from the contaminated soils at 894 Middle Street. These preschool children spend the better part of their day in proximity to seven areas classified by CT DEEP to represent a Significant Environmental Hazard due to PCB concentrations in shallow soil (PCBs greater than 15 ppm).

The target area is bisected into two pieces by an Eversource transmission right-of-way, which renders a 3.5-acre piece of land in the rear corner virtually inaccessible and nearly undevelopable–creating a perfect natural site to isolate and contain some of the low level contaminated soils. The City plans to subdivide the parcel into two pieces, one that will be developed as a fuel cell energy park that will cap the area where contaminated soils are stockpiled. The 11-acre frontage will be marketed and sold to developers once it has been remediated. Residents of the City will benefit from the removal of hazardous materials that threaten public health, from the sale of the parcel, its return to the tax rolls, and a boost in local employment from the jobs created.

2. Demographic Information and Indicators of Need

Bristol is a "distressed" municipality, as designated by DECD on September 15, 2017, pursuant to Section 32-9j of the Connecticut General Statutes. This designation is based on rankings in the areas of per capita income, change in per capita income, percentage of poverty in the population, the change in population between 2000 and 2010, the change in employment between 2006 and 2016, the unemployment rate, the percentage of housing

stock built before 1939, the percentage of adults age 25 and older with a high school degree or higher, and the adjusted equalized net grand list per capita.

	Target Area (Census Tract)	**City/Town or County**	**Statewide**	**National**
Population:	5,136	60,554	3,593,222	316,127,513
Unemployment:	13.5%	9.2%	8.8%	8.3%
Poverty Rate:	8.2%	10.4%	10.5%	15.5%
Percent Minority:	15%	12.3%	22.4%	37.8%
Median Household Income:	$63,107	$61,478	$70,331	$53,889
Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates				

3. Description of Brownfields

The property was formerly the site of a metal processing business, and the results of environmental assessments completed in the 1980s and 1990s indicate the presence of contaminants in the soil. Unknown clean-up costs posed an obstacle to redevelopment for decades. The City facilitated Phase I, II and III Assessments with funding from US EPA through Valley Council of Governments (VCOG, now known as the Naugatuck Valley or NVCOG) and DECD that confirmed the presence of PCBs, dioxin, petroleum hydrocarbons, and metals.

The presence of contaminants on this site poses a threat to public health that the City has assessed and seeks to remediate. Past private efforts have been made to remediate the contaminants, but these efforts were not complete, and significant contamination is still present that must be removed in accordance with US EPA and CT Dept. of Energy and Environmental Protection (CT DEEP) regulations. Remediating the site is of particular concern noting the presence of two preschool facilities located 100 feet north of the property, tributaries of the Eightmile River on or near the property, and the location of a popular recreational facility, Lake Compounce Amusement Park, within one-half mile of the site. There is a unique opportunity to encapsulate a significant portion of the contaminated soils beneath permanent structures on the rear of the property, thus reducing the cost of transporting soils to a disposal site. Working together with FuelCell Energy, Inc. (FCE), the City has developed a plan to lease 3.5 acres of the property to a low-occupancy user, thus turning the soil encapsulation area into a sustainable fuel cell energy project that will benefit not just the Bristol community but the entire state. The City can then market the remaining acres for commercial use when clean, and begin to collect taxes on a parcel that has been nonproductive for decades. Significant wetlands restoration will also be accomplished as part of the cleanup of the parcel, in accordance with plans already approved by the Army Corps of Engineers.

b. Welfare, Environmental, and Public Health Impacts

1. Welfare Impacts: The site is located adjacent to an industrial park and along a heavily traveled state roadway. Behind the site, a Covanta trash-to-energy plant processes many

tons of recycled waste each day, and there is a constant flow of diesel truck traffic on Enterprise Drive which brings associated noise, odor, safety, and additional health concerns. The parcel itself contains a large sandy area in the center that is a favorite site for all-terrain vehicle riders, who disrupt the sand and surrounding vegetation. The test wells and protective fencing around areas of Significant Environmental Hazard have been disturbed by vehicular trespassing on the site, which is heavily posted with warning signs. The police do patrol, but because the affected area is deep within the site and far from the road, ATV-riders are somewhat protected from detection by authorities. Access to the site is easily gained via the Eversource right-of-way. The Eversource electrical towers are the only structures on the property at this time.

2. Cumulative Environmental Issues: The high traffic counts on CT Rte. 229, as well as the Covanta Resource Recovery facility and the City landfill, add to the risk to human health and safety in this part of Bristol. The continued disturbance of the PCB-laden sand by ATVs on the 894 Middle Street site is cause for concern, given the proximity of the preschool facilities across the street. In 2012, the latest year that figures are available, more than 20,000 cars per day passed the site on CT Rte. 229. The cumulative effect of emissions from that number of vehicles is unknown.

Another area of concern is the steady flow of diesel truck traffic on Enterprise Drive making drop-offs to Covanta. Approximately 420 trucks deliver materials inbound to the Covanta facility each week, and 45 outbound vehicles remove ash from the facility on a weekly basis. Covanta maintains a community outreach and environmental justice policy to support their commitment to engage fully with local communities, to reduce discharges and minimize emissions, and to do this in a manner that ensures meaningful community involvement. The Bristol Resource Recovery Operating Committee oversees the activities of the recycling program which is utilized by 14 communities in the Central CT region. The exact nature of the emissions from the Covanta plant are unknown, nor is the impact on air, soil, or water quality in the surrounding area.

Cumulative Public Health Impacts: The incidence of **asthma** in Bristol's children is fairly stable, and somewhat high: out of approximately 9,000 children attending school in the community, about 1,200 have an asthma diagnosis. An annual survey is done of students in pre-k, kindergarten, and grades 6 and 7. In June 2017, 485 children met the criteria for an asthma diagnosis in these grade levels in the district; at Greene-Hills School (the school closest to the site), 52 students met the criteria. This was the highest number for a K-8 school in the district, but one should not draw any conclusions from that observation. The asthma rate in the other two K-8 schools was 38 students at Northeast School and 16 at West Bristol School. According to the CT Department of Health, Bristol is ranked 19th in the state for asthma hospitalization healthcare charges in 2014.

Bristol has a significant percentage of older housing stock, particularly in the low income, multi-family areas of town. These homes are also common sources of **lead paint poisoning**, which can be an issue for young children. The EPA's Environmental Justice Index for the 1-mile radius around 894 Middle Street shows a high lead paint indicator; 60% for the area,

compared to 23% for the US and 55% for the State overall. The Bristol-Burlington Health District oversees the testing and monitoring of children with lead levels measured over 5 µg/dL; home visits are made to determine the source of the lead and measures are taken to encapsulate or otherwise remediate the hazardous area. According to the CT Dept. of Health, in 2015 there were 1148 children in Bristol with a confirmed test of blood level between 0 and 4 µg/dL; 30 above 5 µg/dL; 11 above 10 µg/dL; 6 above 15 µg/dL; and 3 above 20 µg/dL.

Cancer rates in Bristol are reflective of the overall rates in the state, where high rates of breast and lung cancer are prevalent. Bristol has a lower rate of leukemia than the rest of the state and is otherwise unremarkable in CT Dept. of Health statistical reports. No clusters or anomalies have been reported.

Access to healthcare is high in the Bristol community, given the presence of a local community hospital, a federally-funded health clinic, and several walk-in clinics in the downtown area. In the project vicinity (1.6 miles from the site), the Hospital of Central Connecticut operates a walk-in clinic with physician and laboratory services.

FINANCIAL NEED

1. Economic Conditions: The City of Bristol is a distressed community as determined by a variety of indicators established by the State in the Connecticut Statutes Section 32-9j. The City contributed funds during the assessment phase of this very important Brownfield project and it is a high priority for future economic development plans. It is not the only Brownfield site in the City, however, and in fact there is an active Brownfield assessment project at 273 Riverside Avenue that is also drawing resources at this time. The City is also engaged in a major economic development project to revitalize a long-vacant 15-acre parcel in the heart of downtown, as well as working to revitalize an historic theater in Memorial Boulevard School that will be an anchor institution to attract visitors to the downtown area. These projects are over-and-above the usual maintenance of the city's streets, infrastructure, and services. With escalating education costs and unstable budgets at the state and federal level, the City budget is stretched thin.

   The 894 Middle Street project was started with an assessment grant from DECD in 2014, followed by a remediation grant in 2016. In the process of refining the plan and obtaining permits from CT DEEP, the US EPA's Region 1 PCB Coordinator, local land use boards, and the Army Corps of Engineers, additional work has been identified that must be added to the Remedial Action Plan (RAP), thus increasing the estimated cost of the clean-up above the projected costs that were covered by the initial grant from DECD. This application is intended to help fill the gap in funding between that grant and the extra expenses projected by the revised RAP. At a meeting with CT DEEP and US EPA on Nov. 14, 2017, verbal approval was given to proceed with construction bid documents and written approval of the revised plan from US EPA is anticipated in Jan. 2018.
2. Economic Effects of Brownfields: ESPN, the City's largest employer and taxpayer, has experienced some job cuts in recent years as the market and delivery of sports broadcasting has been evolving. Recently, more job cuts at the media giant were announced. Other companies in the area have experienced challenges as the economy changes. The City was

hit hard by the housing crisis in 2008 and has not entirely recovered from the loss of home values at that time. Still, despite the loss of property values, the City is optimistic that once this parcel has been remediated, it will be attractive to commercial developers and can once again become taxable and productive land. It is one of the few sizeable developable parcels of land in Bristol, and its location on a highly traveled state road makes it a likely candidate for future commercial sale.

The northeast 11.43-acres on Middle Street and Enterprise Drive is prime for commercial development. Once remediated, the property represents a significant tax income opportunity for the City and State. Furthermore, jobs will be added to the local economy. There are no other industrial-zoned parcels of this size available in the City, and the demand for clean, buildable land is beginning to grow again now that the economy is rebounding.

2. PROJECT DESCRIPTION AND FEASIBILITY OF SUCCESS

a. Project Description

1. Existing Conditions: The site consists of approximately 17 acres of industrially-zoned property. No structures are currently located on-site, which is partially wooded and has unimproved access roads and clearings. Existing Eversource overhead electrical transmission lines roughly bisect the site from the northwest to the southeast. Branches of the Eight Mile River are located along the west and southern boundaries of the site. The Eight Mile River flows towards the southwest. The site is bounded to the north by Enterprise Drive, a restaurant, and A Place to Grow Too Daycare; to the east by Middle Street and the main campus of ESPN; to the south by residences, wooded and wetland areas; and, to the west by a wooded area and the Bristol transfer station and Covanta.

   From approximately 1955 until about 1990, J. Laviero Metals owned the site and performed metal recycling operations. The business received and recycled scrap metal from all manner of suppliers. The scrap metals included oil filled capacitors and transformers. Based on prior reports, there were three main handling areas (receiving, storage, and a burn pit). Surficial debris remaining from the former metal recycling processes has been noted throughout the site including broken electrical insulators, ceramic pieces, metals, brick, and copper wire.

2. Proposed Clean-up Plan: Our evaluation of remedial options focused on the amount of soils containing various as-found concentrations of PCBs and the federal and state regulatory requirements that apply. State remedial standards have differing requirements that apply to soils containing greater than: 1 mg/kg, 10 mg/kg, 15 mg/kg, and 30 mg/kg (or parts per million). EPA regulations apply more directly to PCB Remediation Wastes and have varying thresholds and requirements that apply to concentrations greater than 1 mg/kg, 10 mg/kg, and 50 mg/kg. The cost for the removal and disposal of varying concentrations of PCB contaminated soils, estimated soil volumes and weights, and additional costs (verification sampling, groundwater monitoring, engineered controls, etc.) were estimated based on the as-found PCB concentrations.

   For the purposes of this plan, and to be conservative with respect to PCB remediation waste handling and disposal, CT DEEP's Significant Environmental Hazard (SEH) threshold of 30 mg/kg was applied as the equivalent of US EPA's requirements for PCB remediation

wastes containing greater than 50 mg/kg. The estimated remedial costs for various scenarios have been itemized. These costs are generally summarized below.

Alternative #1 Off-Site Disposal of PCBs Greater Than 15 mg/kg

This alternative includes the excavation and disposal off-site of an estimated 703 tons of contaminated soils with PCB concentrations above and including 15 mg/kg (the SEH limit) and then capping/environmentally isolating, and on-site management of contaminated soils with PCBs greater than 1 mg/kg and up to 29 mg/kg, in accordance with a presumed Engineered Control Variance approval from CT DEEP. The anticipated regulatory requirements and cost considerations for this option include: (1) Preparation of applications and approvals of risk-based closure, remedial action plans, wetlands permitting, and public notice; (2) Preparation of an application for an Engineered Control Variance for anticipated approval by CT DEEP, including estimated costs for financial assurance, maintenance and monitoring for 30 years; (3) Remedial earthwork and off-site disposal of soils containing PCBs greater than 30 mg/kg. Due to regulatory permitting requirements, multiple disposal facilities may be required; (4) Construction of a one acre landfill cap (assumed flexible membrane liner) to render soils containing PCBs less than 30 mg/kg environmentally isolated; (5) Preparation of Environmental Land Use Restrictions (ELUR) for the western portion of the site to restrict residential use and permit the isolation of PCB-containing soils; (6) Closure verification soil sampling and reporting; and (7) Closure confirmation groundwater monitoring. This cost has been estimated to be approximately $1,531,466, pending final approval of the remediation plan and receipt of contractor bids.

Alternative #2 Off-Site Disposal of PCBs Greater Than 10 mg/kg

This alternative includes the excavation and disposal off-site of an estimated 703 tons of contaminated soils with PCB concentrations above and including 15 mg/kg (the SEH limit); excavation and off-site disposal of an estimated 1,323 tons of soil with PCB concentrations above and including 10 mg/kg; and, then consolidating, capping, rendering environmentally inaccessible contaminated soils with PCBs greater than 1 mg/kg and up to 10 mg/kg in an on-site Soil Consolidation Area (SCA). The anticipated regulatory requirements and cost considerations for this option include: (1) Preparation of applications and approvals of risk-based closure, remedial action plans, wetlands permitting, and public notice; (2) Remedial earthwork and off-site disposal of approximately 703 tons of soils containing PCBs greater than 30 mg/kg. Excavation and off-site disposal of an estimated 1,323 tons of soil containing PCB concentrations greater than 10 mg/kg and less than 30 mg/kg; (3) Construction of a SCA to accept soils with PCB concentrations up to 10 mg/kg. These soils would be rendered environmentally inaccessible (but not isolated) per CT DEEP. Such a remedy would not require an approved Engineered Control Variance or related financial assurance obligations; (4) Preparation of ELUR for the western portion of the site to restrict residential use and permit the isolation of PCB-containing soils; (5) Closure verification soil sampling and reporting; and (6) Closure confirmation groundwater monitoring. This cost has been estimated to be approximately $1,429,709, pending final approval of the remediation plan and receipt of contractor bids.

Alternative #3 Off-Site Disposal of PCBs Greater Than 1 mg/kg but Less Than 10 mg/kg

This alternative includes the excavation and disposal off-site of an estimated 703 tons of

contaminated soils with PCB concentrations above and including 15 mg/kg (the SEH limit based on CT DEEP revised numbers); the excavation and on-site capping of up to 17,150 tons of soils containing PCB up to 10 mg/kg (Option 3A) or the excavation and off-site disposal of 17,150 tons of the same PCB-contaminated soils (Option 3B). To ensure removal of impacted soils to the remedial objective of less than 1 mg/kg, soils would be excavated from the entire 5.6-acre area of PCBs impact to an average depth of 2-feet below grade. This level of off-site disposal is intended to remove residual PCBs remaining in soils above the lowest remedial threshold of 1 mg/kg. The anticipated regulatory requirements and cost considerations include: (1) Preparation of applications and approvals of risk-based closure, remedial action plans, wetlands permitting, and public notice; (2) Remedial earthwork and off-site disposal of 703 tons of soils containing PCBs greater than 30 mg/kg and excavation, off-site disposal of an estimated 18,150 tons of soil containing PCB concentrations greater than 1 mg/kg and up to 30 mg/kg off-site or off-site disposal of soils containing PCBs from 10 mg/kg to 30 mg/kg and the on-site consolidation of remaining soils containing PCBs above 1 mg/kg; (3) Closure verification soil sampling and reporting; and (4) Closure confirmation groundwater monitoring. The estimated cost to consolidate contaminated soil in an on-site SCA is approximately $2,026,459 (Option 3A). Due to the large volume of soil to be rendered inaccessible and the physical constraints (easements, wetlands, etc.) of the site, multiple SCAs may be needed. This cost estimate is pending final EPA approval of the remediation plan and receipt of contractor bids. The cost for disposal of 18,150 tons of soil containing as-found PCBs above 1 mg/kg is estimated to be approximately $3,125,086 (Option 3B). No land use restrictions or other administrative controls would be required upon successful removal of PCB contaminated soils above 1 mg/kg. This cost estimate is pending final approval of the remediation plan and receipt of contractor bids.

SELECTED REMEDIAL OPTION

Based on the considerations summarized above and the estimated cost implications of various remedial options, the selected remedial option, #2, includes removal and off-site disposal of all soils containing PCBs equal to or greater than 10 mg/kg (estimated 2,026 tons), as summarized above. Under the selected scenario, approximately 4,034 cubic yards of soils with as-found PCB concentrations below 10 mg/kg would remain on-site and be rendered inaccessible and/or isolated under concrete pads occupied by fuel cells or another industrial use. An ELUR would be placed on the property deed to prevent residential uses of the SCA property in perpetuity. The site is currently zoned for industrial use.

Alternative #2 is the most cost-effective ($1,429,709) and efficient remedial solution and supports industrial/commercial reuse. If additional volumes of contaminated soils were encountered, the volume of the SCA could be expanded. The SCA would be constructed to conform to regulatory requirements. In this case, an ELUR would be applied to the property deed record to render the soils within the SCA inaccessible in perpetuity and to restrict residential use. The reuse of the polluted soil will be completed consistent with Section 22a-133k-2(h)(2) of the Remediation Standard Regulations (RSRs) (Use of Polluted Soil and Reuse of Treated Soil). Consolidation and on-site beneficial reuse of the bulk of lightly contaminated soils is: (a) Protective of human health and the environment; (b) Meets regulatory requirements; and, (c) Meets the requirements of the ABCA evaluation that must consider reduced volume of waste generated/disposed, reduced volume of materials taken

to landfills, and recycling and re-using materials generated during the cleanup process to the maximum extent practical. The consolidation of soils contaminated with PCBs less than 10 mg/kg requires both EPA and CT DEEP approval.

3. Revitalization Plans for the Site: The City has a lease agreement with FuelCell Energy, Inc. (FCE), to construct a fuel cell park on 3 - 4 acres of the isolated back section of the parcel, on top of the soil containment area. Establishing a fuel cell park in the rear of the parcel is a sustainable energy project that benefits the City and State by increasing the reliability of electric service to the critical load center in the immediate area, assists in remediation of the frontage of the property making it available for sale and redevelopment, adding jobs as well as payment in lieu of taxes (PILOT) and lease revenue to the City of Bristol. The location of a renewable power source with potential microgrid capability on the rear portion of the property will only serve to make the property's frontage more attractive for development.

b. Task Descriptions and Budget Table

1. The following represents the proposed task descriptions and project schedule:

Task 1 – Community Outreach – Public Meetings to be held during and at the conclusion of the project, at Bristol City Hall. Personnel costs to cover grant oversight.

Task 2 – Site Cleanup – Procurement and contract with soil remediation firm, and supervision of cleanup activity by LEP. Personnel costs to cover grant oversight.

Task 3 – Reporting and Project Closure – Submission of all reports, final public meetings, closure of EPA and other grant contracts. Includes travel to EPA Brownfield Conference. Personnel costs to cover grant oversight.

The budget requested by this grant application is intended to supplement the grant funding received in 2016 from DECD to remediate the site. Additional work required on the site by CT DEEP and US EPA for wetlands remediation and soil testing has increased the anticipated cost of the project, which will ultimately be set in accordance with contractor bid results and soil disposal costs.

The project schedule included below allows two months for preparation and issuance of bid documents, negotiation and signing of contracts, and mobilization of contractor on the site. The preference is to begin work on the site, particularly in the wetlands area, in late winter. Verbal agreement to proceed with the plan was given by CT DEEP and US EPA on Nov. 14, 2017, to be followed with written approval in January 2018. All other permits to begin the remediation and wetlands restoration work have been secured.

Project Schedule:

November 2, 2017 - Public Information Meeting Regarding ABCA.

November 14, 2017 – EPA Verbal Approval of the PCB Risk-Based Cleanup Application.

December 2017 – Contractor Bidding.

March 2018 – Contractor Mobilization.

May 2018 – Contractor Demobilization; final Public Meeting.

2018-2020 – Monitoring of site in accordance with EPA/DEEP agreements.

2. Budget Table

Budget Categories	Project Tasks ($)				
	Community Outreach	Site Cleanup	Reporting & Project Closure		Total
Personnel	$1,000	$3,000	$1,000		$5,000
Fringe Benefits					
Travel			$3,000		$3,000
Equipment					
Supplies					
Contractual		$192,000			$192,000
Total Federal Funding	$1,000	$195,000	$4,000		$200,000
Cost Share (20%)		$40,000			$40,000
Total Budget:	**$1,000**	**$235,000**	**$4,000**		**$240,000**

c. Ability to Leverage

Source	Purpose/Role	Amount ($)	Status
CT Dept. of Economic & Community Development	Remediation grant - See Attachment B	$1,338,509.00	Ongoing
FuelCell Energy, Inc.	Letter of Intent to build Fuel Cell facility on site – See Attachment B	$350,000.00	Awaiting DEEP approval

The City has been awarded a $1.3 million remediation grant from DECD to clean the brownfield parcel at 894 Middle Street (Attachment B). Wetlands permits have been secured for work on the site from the City of Bristol, the Town of Southington, and the Army Corps of Engineers. Expenses that were added to the project as a result of working with staff from CT DEEP and US EPA New England Regional Office have resulted in a need to seek additional funding to complete the remediation project. Specifically, the wetlands remediation work in Southington has added to the scope of the project and will require additional funding to remove and dispose of contaminated soils in that segment of the wetlands, which was previously not accounted for in the cost estimates.

The support from FuelCell Energy, Inc. (FCE) has been secured and is pending approval of DEEP for locating a fuel cell facility at this location. The rear 3.5-acre portion of the 17.17-acre property is a natural place to isolate contaminants, and therefore is an ideal location for a fuel cell project given that such a facility requires limited access and no personnel onsite. FCE has proposed to install fuel cells to generate 18.5 MW of power on this isolated

triangle. The benefits to the City and State from the FCE proposed project will include improvements to the reliability of electric service to the critical load center in the immediate area, remediation of the frontage of the property making it available for sale and redevelopment, adding jobs as well as PILOT and lease revenue to the City of Bristol. The location of a renewable power source with potential microgrid capability on the rear portion of the property will only serve to make the property's frontage a more attractive parcel for development.

3. COMMUNITY ENGAGEMENT AND PARTNERSHIPS

a. Community Involvement: The cleanup of this property is important to the entire Bristol community because of the public health benefit, ecological benefit, the economic development potential of the site, and the chance to have a fuel cell facility operating in the City. The partners that have been gathered to support this project include, but are not limited to the Greater Bristol Chamber of Commerce, representing the business community; Tunxis Community College, providing workforce development opportunities; and FuelCell Energy, Inc., a company that is actively pursuing approvals to construct a sustainable energy project on the site that will provide energy to residents of Bristol while it helps to encapsulate contaminated soil in a soil containment area at the rear of the parcel. Other businesses in the community are supportive of this application, including those in the neighboring 229 Technology Park and in the City's Southeast Bristol Business Park.

Community Engagement and Public Meeting: Letters have been sent to all abutting property owners informing them of the presence of contaminated soil and the City's plan to remediate the property. Two public notices have been posted in the newspaper (Bristol Press): one informing people of the City's intention to remediate, and the other announcing the public meeting on November 2, 2017 and the availability of review documents at the Bristol City Hall prior to that date (see Attachment E). Further, the public meeting notice was posted on a public announcement board in Bristol City Hall, on the City's website, and on the Bristol Development Authority's meeting calendar. Translators were available upon request, and the meeting location in City Hall is fully accessible. Maps and other visual aids were available to demonstrate the location and scope of the work being planned on the parcel, which is quite large and obscured by vegetation.

The Analysis of Brownfield Cleanup Alternatives (ABCA) is available for review at the Information Repository during the month of November 2017. The City is accepting public comment on the draft ABCA for a period of 30 days from the date of availability. All written comments received within the 30 day comment period as well as those received during public meetings will be considered by the City and its environmental consultant for inclusion into the final ABCA. Additional public meetings will be held as needed during the project to provide information, answer questions, and receive comments. A final public meeting will be held at the conclusion of remediation. Meetings will be scheduled in the early evening to accommodate the needs of working families. The meetings will be held at Bristol City Hall unless otherwise noted.

Protecting Community Health During Cleanup: A Health and Safety Plan (HASP) will be developed and followed during site cleanup. Signs have been posted alerting residents of the presence of PCBs on the site. Areas with high concentrations of PCBs have been fenced

off and additional signage posted around those areas. During the cleanup, appropriate measures will be taken to control dust and reduce the potential impact of the remediation on neighboring properties. All abutting property owners have been contacted by mail to inform them of the City's intention to remediate this parcel, and contact information was provided in the letter for where to direct questions and comments about the cleanup plan.

The Director of the Bristol-Burlington Health District has been contacted regarding the City's plan to remediate this parcel, and his assistance has been requested in gathering data regarding the health status of citizens of the community in general, and of this census tract area in particular. While this parcel is not located in a residential area, there are homes nearby that could be impacted by the presence of contaminants on this parcel.

b. Partnerships with Government Agencies

State Environmental Agency: The City of Bristol submitted an Environmental Condition Assessment Form (ECAF) to CT DEEP on September 6, 2016. A remedial action plan was submitted to CT DEEP and US EPA subsequent to this date, with correspondence between the City and Kimberly Tisa, PCB Coordinator for the EPA's Region 1 Office of Site Remediation and Restoration.

The City has contracted the services of Nobis Engineering, Inc., and Tim Carr as the Licensed Environmental Professional. Mr. Carr worked on this site throughout the assessment phase (originally with GeoDesign, Inc.), and he is very familiar with all of the contaminants on the site. Having the same LEP throughout the assessment and remediation process has been very productive because of Mr. Carr's intimate knowledge of the data: he knows the scope and depth of the contamination, the location of old and new drill sites, and the extent of contaminant washout in the wetland areas.

The City has worked with CT DEEP staff to develop the remediation action plan (RAP) and wetlands restoration. CT DEEP staff members will be performing various reviews of the material. Aside from their review of the RAP, CT DEEP staff will continue to provide oversight during the remediation process.

At the local level, the City of Bristol has capable staff in the Bristol Development Authority (BDA), the Department of Public Works (DPW), and the Bristol-Burlington Health District (BBHD) to support and oversee this project. The BDA's Executive Director Justin Malley and Grants Administrator Dawn Leger are both experienced in the administration of state and federal grants, having years of experience submitting reports and overseeing the proper execution of grant activity. At DPW, Carol Noble, PE has assisted in the review of wetland permit submissions and other reports to US EPA.

Local Health Agency: The Bristol-Burlington Health District will assist the BDA by providing data support and notification about the application to the community, and consultation if needed regarding the health and safety of workers as well as residents during the remediation process.

c. Partnerships with Community Organizations

The **Community Organizations** that will be an integral part of the EPA Cleanup project at 894 Middle Street include the Bristol-Burlington Health District (a free-standing entity that is not part of the municipal government), the Greater Bristol Chamber of Commerce, a member of the Central Connecticut Chambers of Commerce, and Tunxis Community

College, which will be involved as a partner in providing workforce training exposure to its engineering students. Three letters of commitment are included with this application (Attachment C).

The **Bristol-Burlington Health District** will assist the BDA by providing data support and notification about the application to the community, and consultation if needed regarding the health and safety of workers as well as residents during the remediation process.

The **Greater Bristol Chamber of Commerce** is an essential partner to the BDA in notification to the community about the plans for remediation and the public meeting announcing the EPA application. Further, the Chamber is an integral part of the BDA's planning process for redevelopment of the parcel and promotion of the project as a workforce development opportunity.

The BDA will work with faculty of **Tunxis Community College** to arrange for appropriate site visit(s) for students to learn from remediation professionals about the career opportunities that are available in this field. This type of real-world experience is critical to inform and enhance the educational experiences of students, and the opportunity to visit an active brownfield remediation site is unique and valuable. The student visits will be limited due to personal exposure concerns.

d. Partnerships with Workforce Development Programs

The City of Bristol has a **Local Bidding Preference** set forth in the Purchasing Manual dated February 1, 2017. If a local business submits a bid to the City that is within 4% of the lowest compliant bidder and meets all other requirements, the local bidder is allowed to accept the award at the lower bid. This does not apply to contracts exceeding $1 million or where grant funds disallow the practice. There are other exceptions and guidelines that must be followed in the application of this policy. The policy is available online at the City website.

Tunxis Community College has a long history of working with the City of Bristol on several projects, including workforce initiatives through the Tunxis@Bristol satellite location in downtown. The brownfield remediation project at 894 Middle Street provides a unique opportunity for Tunxis students who are interested in careers in engineering, earth science, and construction to visit an active work site and see the many kinds of work being done there. From the oversight being done by the Licensed Environmental Professionals, to the hands-on work being performed by the remediation contractors, there are many facets of hazardous materials cleanup that can lead to vital careers. A letter from Tunxis Community College is attached that supports our proposal to introduce students to the career opportunities available in brownfields remediation during the project period.

4. <u>PROJECT BENEFITS</u>

a. Welfare, Environmental and Public Health Benefits: The remediation of significant environmental contaminants from this large parcel of land that has been vacant for more than 40 years will benefit the residents of the immediate area as well as the entire City. The contamination represents a public health emergency, as the land is used as an ATV recreation area, dispersing the PCB-laden sand and potentially moving it onto the roadway and off the site where it has been relatively well contained for decades. It is urgent to remediate the PCB hazard and be rid of the potential health threat from this and other contaminants on the site. The restoration of the wetlands will also benefit the ecology and community. Encapsulation of some of the soil on site is considered a green solution, more

beneficial to the environment than trucking tons of soil to a landfill that may be very far away. The proposed soil containment area, under a proposed energy-producing fuel cell park, is a high-level solution that can be an example of best practices for future remediation.

b. Economic and Community Benefits: In addition to the health and welfare concerns related to the cleanup, there are economic reasons to undertake this project that will also impact the entire city. Having a 17-acre parcel of buildable land lie fallow is a drain on the taxpayers. The previous owners of the land were in tax arrearage for many years prior to the City moving to foreclosure. Once the cleanup is complete, the City will be able to sell the parcel in one or several pieces and collect the income from that sale, the taxes from the future owners, and the future benefit from buildings, jobs, and economic activity. The entire City will benefit from this improvement.

Additionally, a beneficial component of the proposal is the plan to build a **sustainable fuel cell energy facility** on the isolated rear section of the parcel. The City has an agreement with FuelCell Energy (FCE) to lease the company 3 – 4 acres in the southwestern corner of the site, on an area that is isolated by the Eversource right-of-way, for the purposes of installing fuel cells above a soil containment area. The presence of FCE as the long-term lease holder of the rear 3.5 acres of the site will be an economic benefit to the City, as well as a boon to the entire state from the benefit that is derived by the generation of clean energy, supplied to the local grid via the nearby transfer station. As a partner in the remediation of the site, the FCE plan further provides a long-term benefit to the citizens of the City and State by offering a source of secure, cost effective, reliable, and clean energy. FCE has a good track record of working to turn brownfields into productive clean energy sites, and the site provides an ideal location for this development.

5. <u>PROGRAMMATIC CAPABILITY AND PAST PERFORMANCE</u>

a. Audit Findings: The City of Bristol has no adverse audit findings of any grants.

b. Programmatic Capability: The BDA is the department that manages brownfield grant activity for the City of Bristol. BDA staff has worked successfully over the past 15 years with CT DECD, CT DEEP, US EPA, and NVCOG to create viable plans for remediation and reuse of brownfields that have sat empty for far too long, threatening the health of their neighborhoods and acting as a drain on the resources of the community as well as a hindrance to economic development in the surrounding area.

Key Staff: The BDA, under the leadership of grants administrators Robyn Bugbee, Justin Malley, and now Dr. Dawn Leger, has been a leader in cataloging and monitoring the brownfields within its borders, and has received numerous grants from US EPA and CT DECD to assess and remediate polluted properties. The City received funding of $207,582.84 to engage HRP Associates to conduct Phase I and Phase II assessments of the Sessions property (an 80,000 square-foot factory building), beginning in 2002 and resulting in two reports in 2003 and 2005. A US EPA-funded Phase III study for the Sessions property was conducted by Environmental International Gov LTD and ICF International that was finalized in 2010. In 2016, DECD awarded the City $50,000 to update the assessment.

Timothy Carr, LEP has been working for the City of Bristol and overseeing investigation and remediation of 894 Middle Street since 2014. Phase I, II, and III Environmental Site Assessments were completed. An Application for Risk-Based Clean-up of PCBs was also

completed and is in the process of approval from the US EPA. Inland wetlands approvals from the City of Bristol, the Town of Southington, and the U.S. Army Corps of Engineers were also obtained for this project.

Mr. Carr has 30 years of experience as an environmental consultant. His experience includes the closure of industrial hazardous material impacts using a variety of remedial methods including: excavation and disposal; pump and treat; in-situ chemical oxidation, ex-situ chemical oxidation, and capping. Capping methods have included a variety of construction methods and materials. In 2017, one of Mr. Carr's projects was awarded an Engineering Excellence Award from the American Council of Engineering Companies (1 Kennedy Flats in Danbury, CT). The project involved the successful capping of a 10-acre former hat factory site for development of 370 apartment units along Main Street in Danbury, CT.

The City of Bristol Purchasing Department manages the **bid procurement process** under a set of purchasing guidelines established by that office and overseen by the City's Board of Finance. The Purchasing Director has experience working with State and Federal contracts and will follow prescribed guidelines for the procurement of contractors to work on brownfield projects funded under this grant.

c. Measuring Environmental Results: Anticipated Outputs/Outcomes

The City is prepared to utilize US EPA's **ACRES database** to make regular reports on the progress of the cleanup activity on the site, the expenditure of grant funds, the leveraging of funds for the project, and certification of these activities by a Licensed Environmental Professional. Reports on the redevelopment of the parcel will also be made via the ACRES system as that activity progresses.

The LEP has generated a **Scope of Work** for the project and will work with the Purchasing Director to procure a contractor for the cleanup. Once that is accomplished, a detailed **work schedule** will be created and cleanup will commence on the site. Land use and wetlands permits have already been obtained from the City of Bristol, the Town of Southington, and the Army Corps of Engineers, along with sign-off from CT DEEP, so the immediate removal of contaminated soil from the areas of Significant Environmental Hazard can commence as soon as contracts are signed.

The anticipated **output from this grant** will be 17 acres of developable land at 894 Middle Street. The community will no longer be exposed to the risk of on-site contact with PCBs and other identified contaminants of concern. The investment by the EPA via grant money will help realize a favorable outcome for the City of Bristol and Bristol residents and return an unproductive vacant site to active use. Cleanup of soil contamination will protect groundwater quality and surface water quality of the Eight Mile River and associated wetlands. Using comparables and property assessment figures, it is estimated that this land is highly marketable and may generate significant income for the city through the land sale and subsequent real estate tax income. Jobs will be created in the short-term from construction activity and in the long-term from employment at whatever business decides to build on this location.

The acreage north of the transmission lines, which is approximately 11.50 acres, can be marketed for a variety of commercial uses. The market value of that portion of the property when remediated may be approximately $500,000 to $750,000 or more. The chart below

demonstrates the tax benefits that can occur when the City is able to sell the vacant land after cleanup. This information has been provided by the City Assessor based on the current local real estate market.

Possible Use	Proj. Sq. Ft.	# Employees	Est. Property Value	Est. Annual Taxes
Medical offices	150,000	350 - 500	$30,000,000	$730,000
Large retail	100,000	50 - 75	$8,250,000	$200,000
Car dealership	25,000	50 - 75	$3,710,000	$90,000
Warehouse	100,000	20 - 30	$3,510,000	$85,000
2 Machine shops	50,000 x 2	50 - 60	$1,650,000	$40,000

d. Past Performance and Accomplishments

The City has conducted several other brownfield remediation projects, past and present, **with funding from both DECD and US EPA**: The DECD-funded brownfield assessment and cleanup at 894 Middle Street (CT Rt. 229, a gateway into Bristol), where the 17-acre parcel will be cleaned for commercial reuse. Funding on this site includes a Phase II assessment of this parcel funded with a $60,000 **US EPA** grant through the VCOG, a $125,000 Phase III grant from DECD, and a $30,000 contribution from the City of Bristol to complete the project. In 2016, the City was awarded a **$1.3 million remediation grant** from the CT Brownfield Remediation and Development Grant Program at DECD. This project is ready to begin and will be successful as the City prepares to clean up a long-vacant site and return it to the tax rolls as a prime parcel ready for commercial development.

In an example of a past success, the City of Bristol leveraged $958,398 to remediate and redevelop the H.J. Mills Property, a former cardboard box manufacturer located in downtown Bristol. The City received a **US EPA Targeted Brownfields Assessment (TBA) grant** in 1999 and a **US EPA Brownfields Assessment Demonstration Pilot grant** in April 2001 that funded Phase I, Phase II, and Phase III assessments on the Church Street property. Following the Phase III assessment, the City expended $40,000 in City funds to complete a remediation and construction feasibility study for the property. In 2009, the City received $345,033 in **US EPA Brownfields Cleanup grant funds** for the site. As part of that effort, the City leveraged more than $1 million to remediate and develop the property into a community parking lot. The City leveraged additional funds for the project to complete post-remediation work, including groundwater monitoring, filing an Environmental Land Use Restriction, developing a Remedial Action Report, and securing Final Verification from CT DEEP in Spring 2016.

An assessment and clean-up of a property at 316 Park Street was also completed under the supervision of the BDA Grants Administrator. That work, which was funded by **US EPA grants** via VCOG and monitored by CT DEEP, included $27,500 for the Phase I, Phase II, and partial Phase III assessments, and $150,000 for the final remediation and monitoring of the parcel. For all US EPA cleanup grants, **all funds were expended, the grants were closed, and no adverse audit findings were made.**

THRESHOLD CRITERIA

1. **APPLICANT ELIGIBILITY:** The City of Bristol is a municipality that acquired the site, 894 Middle Street, through a tax foreclosure action in 2015.
2. **SITE OWNERSHIP:** The City of Bristol is a municipality that acquired the site, 894 Middle Street, through a tax foreclosure action. The parcel consists of 17.17 acres with frontage on Middle Street (CT Rte. 229) and Enterprise Drive.
3. **BASIC SITE INFORMATION**: The site known as 894 Middle Street, Bristol, CT 06010 is owned by the City of Bristol.

   STATUS AND HISTORY OF CONTAMINATION AT THE SITE: 894 Middle Street was undeveloped farmland until 1953 when it was purchased by J. Laviero Metals Co., which operated a metal reclamation business on the premises until approximately 1990. The property was then purchased by BristolVest LLC and Enterprise 229 Development Corp., which removed the buildings and storage tanks and filed papers stating that a remediation had been done. The results of environmental assessments completed in the 1980s and 1990s indicate the presence of contaminants in the soil. Unknown clean-up costs posed an obstacle to redevelopment for decades. The City facilitated Phase I, II, and III Assessments with funding from EPA through the Valley Council of Governments (VCOG) and the CT Dept. of Economic and Community Development (DECD) that confirmed the presence of polychlorinated biphenyls (PCBs), dioxin, and semi-volatile organic compounds (SVOCs). The parcel has remained unused and unoccupied for the last 40 years.
4. **BROWNFIELDS SITE DEFINITION**: 894 Middle Street is (a) not listed or proposed for listing on the National Priorities List; (b) not subject to unilateral administrative orders, court orders, administrative orders on consent, or judicial consent decrees issued to or entered into by parties under CERCLA; and (c) not subject to the jurisdiction, custody, or control of the U.S. government.
5. **ENVIRONMENTAL ASSESSMENT REQUIRED FOR CLEANUP PROPOSALS**: Phase II/III Environmental Site Assessments (report submitted July 18, 2016) were completed in accordance with the project Quality Assurance Project Plan (QAPP) dated August 27, 2014 and submitted by GeoDesign to US EPA/CT DEEP for review.
6. **ENFORCEMENT OR OTHER ACTIONS**: Significant Environmental Hazards (SEH) have been identified through sample testing at seven (7) limited areas of the site. These areas have been fenced off and signage has been placed warning of the presence of PCBs in the soil. The first work on the site will be the excavation and removal of these highly contaminated soils from the parcel to a secure disposal facility at an off-site location.
7. **SITES REQUIRING A PROPERTY-SPECIFIC DETERMINATION**: The property known as 894 Middle Street, Bristol, CT does not require a Property-Specific Determination as it is not subject to TSCA remediation.
8. **SITE ELIGIBILITY AND PROPERTY OWNERSHIP ELIGIBILITY**:

a. **Property Ownership Eligibility – Hazardous Substance Sites**

   1. CERCLA 107 Liability: The owner of 894 Middle Street is eligible for the Brownfield program because it is a municipality that acquired the property through tax foreclosure.

2. Information on Liability and Defenses/Protections: The property known as 894 Middle Street was acquired by the City of Bristol in a tax foreclosure action against the owners, BristolVest LLC, Enterprise 229 Development Corporation, and W.H. Associates, LLC, on May 5, 2015 in New Britain Superior Court. The City of Bristol and its officers have no relationship with the owners, except as Tax Collector and Corporation Counsel seeking payment of real estate tax liens on the property.

b. **Timing and/or Contribution to Hazardous Substances Disposal**: The release of hazardous materials on the site took place between 1953 until the mid-1970s, during which time the J. Laviero Metals Co. operated a metal reclamation business on the premises. On Feb. 6, 1984, the owner of 894 Middle Street, J. Laviero Metals Co., was issued Administrative Order No. WCU 3676 by the CT DEP Water Compliance Unit. The order required the investigation of soil, ground water, and sediment contamination resulting from chemical and scrap metal storage, handling, and disposal activities. The extent of PCB contamination was a particular issue. On Feb. 28, 1989, the CT DEP issued a letter that remediation was approved pending completion of groundwater monitoring. However, a 1995 Phase II and Phase III Investigation by Diversified Environmental Services (DES) identified that soil contamination was still present and had not been remediated during the previous soil removals in the 1980s, as had been required by CT DEP's 1984 Administrative Order. In the years since the company sold the property, it is believed that no additional contaminants were released on that location. Since the City acquired the parcel, it has been monitored, no dumping has occurred, and no hazardous materials have been disposed of or transported to the site.

c. **Pre-Purchase Inquiry:** The City hired GeoDesign, Inc. to perform a Phase I Environmental Site Assessment that was completed in June 2014 and a Quality Assurance Project Plan submitted for US EPA review. GeoDesign completed the Phase II ESA in August 2014, and a scope of work was submitted for US EPA/DEEP review at that time. Testing for the Phase III ESA was completed in February 2016 by Nobis Engineering, the firm to which Tim Carr, the LEP from Phase I and II, had moved, along with Ray Janeiro, the PE working on the project. A Remedial Action Plan was presented to US EPA and CT DEEP for review on April 21, 2016. Tim Carr, LEP performed the AAI investigations from the first phase of the project.

d. **Post-Acquisition Uses:** The property has been vacant and unused since the City took possession on May 5, 2015. There are no structures on the property except for electrical towers owned by Eversource that are located in a right-of-way that bisects the land from the northwest to the southeast.

e. **Continuing Obligations**: The City has posted "no trespassing" signs on the land and put up fencing to restrict access to the areas of Significant Environmental Hazard, some of which are in a sandy area accessed by the Eversource right-of-way that is a favorite of ATV riders. The Police Department has been asked to increase patrols to discourage trespassing in order to limit exposure to contaminated soil, to reduce damage to sampling wells, and to keep safety fencing intact. The fences are regularly checked and repaired.

f. **Confirm Commitment:** The City is committed to cleaning up this parcel and complying with any land-use restrictions that may be necessary; to assisting with the cleanup in any way

and with whatever staff support is necessary, including engineering, public works, and police support; to comply with any requests for information from the public and neighboring communities and to respond to any administrative subpoenas that have or may be issued in connection with the property, and to provide all legally required notices.

g. **Property Ownership Eligibility:** 894 Middle Street is not a petroleum site.

9. **CLEANUP AUTHORITY AND OVERSIGHT STRUCTURES**

a. **Describe how you will oversee cleanup**: The City will work with CT DEEP and US EPA, in accordance with a Risk-based Plan for Cleanup of PCBs that has been submitted and reviewed by both agencies. The City has contracted with Nobis Engineering to supervise this work, and a Request for Proposals is being prepared that will be administered by the City's Purchasing Department to select a contractor for the site work.

b. **Provide plan to acquire access to relevant properties. If access is not believed to be needed, confirm that you will pursue access if it is necessary:** The City owns the target property and has an access agreement with the owner of a neighboring parcel in Southington where some remediation will be done and wetlands restored.

10. **COMMUNITY NOTIFICATIONS**

a. **Draft Analysis of Brownfields Cleanup Alternatives: (**Attachment E).

b. **Community Notification Ad:** Notice of Public Meeting - The Bristol Development Authority will hold a PUBLIC MEETING on Thursday, November 2, 2017 at 6:00 p.m. in the First Floor Meeting Room of Bristol City Hall, 111 North Main Street, Bristol, CT 06010. The City of Bristol hereby gives notice of its intention to apply for grant funds from the U. S. Environmental Protection Agency to conduct clean-up activities at 894 Middle Street in Bristol, CT. The proposed remediation will include the removal of contaminated soils impacted by polychlorinated biphenyls (PCBs). A copy of this grant proposal and the draft Analysis of Brownfield Cleanup Alternatives (ABCA) is available for review and comment at the Bristol Development Authority, 111 North Main Street, Bristol, CT 06010.

c. **Public Meeting:** A Public Meeting was held on Nov. 2, 2017 at 6:00 p.m. in the First Floor Meeting Room of Bristol City Hall, 111 North Main Street, Bristol CT. Dr. Dawn Leger, the Grants Administrator for the City, opened the Public Meeting at 6:00 and introduced Tim Carr, LEP, who presented an overview of the history and proposed activity on the site. The meeting ended at 6:30 p.m. There were no public comments received prior to the meeting, and no members of the public attended the meeting. For 30 days following the Public Meeting, the ABCA will be available for review by members of the public at the Bristol Development Authority office in Bristol City Hall.

d. **Submission of Community Notification Documents:** Copy of Draft ABCA, Copy of the Public Notice Ad, Comments or a summary of the comments received, Response to the public comments, Meeting notes or summary from the public meeting, Meeting sign-in sheets are provided in Attachment E.

11. **STATUTORY COST SHARE**

a. The City of Bristol will meet the required cost share by leveraging Brownfields Remediation grant funding in the amount of $1,338,509.00 obtained in 2016 from CT DECD.

Attachment A

Letter from the State

(Section IV.C.2.h.)

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

79 Elm Street • Hartford, CT 06106-5127 www.ct.gov/deep Affirmative Action/Equal Opportunity Employer

October 19, 2017

Ms. Dawn Leger, Ph. D, Grants Administrator
Bristol Development Authority
111 North Main Street
Bristol, CT 06010

Re: State Acknowledgement Letter for EPA Brownfields Cleanup Grant for FY 18

Dear Ms. Leger:

The Connecticut Department of Energy and Environmental Protection (DEEP) acknowledges that the Bristol Development Authority intends apply to the US Environmental Protection Agency (EPA) for a Brownfields Cleanup Grant for Federal Fiscal Year 2018. The Bristol Development Authority plans to use the grant funding to conduct cleanup activities at the following property contaminated with hazardous substances:

- 894 Middle Street, Bristol

Please note that at any site for which the Bristol Development Authority receives cleanup funding from EPA, cleanup work must be performed in one of Connecticut's formal remediation programs, including among others the Voluntary Remediation program pursuant to CGS § 22a-133x, the Property Transfer Program, (if applicable) pursuant to CGS §22a-134, the Urban Sites Remedial Action Program pursuant to CGS §22a-133m, or the Brownfields Remediation and Revitalization Program pursuant to CGS §32-769.

If you have any questions about this letter, please contact me at (860) 424-3768 or by e-mail at mark.lewis@ct.gov. Good luck with your application.

Sincerely,

Mark R. Lewis
Brownfields Coordinator
Office of Constituent Affairs & Land Management

c: Ms. Dorrie Paar, EPA (via e- mail)

Attachment B

Leveraged Resources

(Section IV.C.3.2.c.)

Department of Economic and Community Development

Connecticut
still revolutionary

Tim Sullivan
Deputy Commissioner

July 7, 2016

Mr. Kenneth B. Cockayne
Mayor
City of Bristol
City Hall
111 North Main Street
Bristol, CT 06010]

Dear Mayor Cockayne:

The Department of Economic and Community Development is pleased to submit a proposal for assistance in support of the City of Bristol's plans to remediate and redevelop real property located at 894 Middle Street. Bristol, CT. Under this proposal, the City will subdivide approximately 17.1-acres of land located at 894 Middle Street into two parcels. The larger parcel of approximately 10.5-acres, will be remediated of the PCB contaminated soils, and redeveloped for commercial development. The 3-5 acre parcel, which is in the rear of the original 17.1- acre parcel will be used to encapsulate the PCB laden soil (< than 10 ppm) from the entire site. An engineered control will be implemented to render the PCBs contained and not detrimental to human life.

The following pages contain a project description and supporting details of a financial assistance package developed jointly between your staff and ours.

This proposal represents Governor Malloy's continuing commitment to support Connecticut's municipalities and we are pleased to have an opportunity to work with you on this project. The success of your project and your community are important to us.

Our staff will continue to be available to you and your staff throughout the duration of the project. If you have any questions concerning this proposal please contact Ned Moore, your Project Manager, at 860.2708148.

Sincerely,

Tim Sullivan
Deputy Commissioner

Agreed and Accepted By:

The City of Bristol

Kenneth B. Cockayne, Mayor

7-8-16
Date

State of Connecticut

Governor Dannel P. Malloy

Department of Economic and Community Development

Commissioner Catherine H. Smith

Financial Assistance Proposal

For

894 Middle Street Remediation & Reuse

The City of Bristol

July 2016

Ver. 7.1.16 Mun

BACKGROUND

Applicant Description: The City of Bristol, located in the southwestern Hartford County, was incorporated in 1785 as a town and is home to nearly 61,000 residents. Bristol is part of the Naugatuck Valley Council of Governments and is one of the communities that make up the Naugatuck Valley Economic Development District for USEDA funding and economic development planning. A former major manufacturing center, Bristol is now known primarily as the home of ESPN, the 24-hours /day a leader in sports programming to the world. Primary employers include ESPN, Bristol Hospital and the City of Bristol municipal government and Board of Education.

Project Description: This is a $1,339,000 Brownfields Grant to the City of Bristol to fund a project to remediate and abate Polychlorinated Biphenyls (PCBs) from a 17.1-ac. site located at 894 Middle Street, Bristol, CT. Until 1953, this site was undeveloped farmland. The property was bought by J. Laviero Metals, Inc,. a company that operated a metals reclamation center at the site until 1977. The site has been vacant since. The buildings were demolished and many environmental studies determined the presence ash, oil, polychlorinated biphenyls (PCBs)and Semi Volatile Organic Compounds (SVOCs). A Remedial Action Plan was submitted to the USEPA for review in April, 2016. Once the property is abated and remediated, 11.5 acres shall be developed either for commercial / light industrial or residential. Approximately 3.5 acres will be closed to future development by a land use restriction. The site will be capped by a fuel cell array that may generate up to 20 MW's of electric power for the immediate area.

SOURCE AND USE OF FUNDS

Sources of Funds

Fuel Cell Energy	$ 350,000
DECD – Brownfields Grant, Sec. 32-763	1,339,000
Total	**$ 1,689,000**

Use of Funds

Remediation	985,508
Monitoring	97,020
Construction	350,000
Environmental Engineering	103.000
Administrative Costs (admin., legal)	16,718
Legal – ELUR	10,000
DECD Legal	7,500
Contingency	119,254
TOTAL	**$ 1,689,000**

** The figures above may be amended from time to time through requests for revisions to the Project Financing Plan and Budget, as approved by the Department of Economic and Community Development.*

FINANCIAL ASSISTANCE PROPOSAL

This financial assistance proposal is based upon the commitment of the City of Bristol (hereafter, the "Applicant"), to implement the project as described herein. The State of Connecticut, acting through the Department of Economic and Community Development (hereafter, "DECD") and under the provisions of the Brownfields Grant Program, Sec. 32-763 of the C.G.S. proposes a financial assistance package consisting of a grant in the total amount of $1,339,000. DECD financial assistance shall not exceed $1,339,000 as described in this proposal and as set forth in the most recently approved Project Financing Plan and Budget. The components of this financial assistance are outlined below:

Applicant:	**City of Bristol**
DECD Financing:	$1,339,000 Grant
Amount and Use of DECD Funds:	$ 985,508 Remediation 97,020 Monitoring 103,000 Environmental Engineering 16,718 Administration 10,000 Project Legal (ELUR) 7,500 DECD Legal 119,254 Contingency **$1,339,000 TOTAL**

PROPERTY RESTRICTIONS

Negative Pledge

The Applicant agrees that it will execute a Negative Pledge and Agreement ("Negative Pledge") in a form acceptable to the Commissioner, which Negative Pledge shall provide that the Applicant shall not sell, lease, transfer, assign, or in any way encumber or otherwise dispose of the Applicant's property, located at 894 Middle St., Bristol, CT, in whole or in part, without first obtaining the written consent of the Commissioner. The Negative Pledge shall be recorded on the land records of the City of Bristol, CT.

ENVIRONMENTAL COMPLIANCE

Environmental Condition of the Real Property

As determined by DECD, the environmental site assessments, survey, reports and remedial action plans will be prepared for real property subject to project activities. A professional firm licensed to practice in the State of Connecticut shall prepare the reports. The scope of investigations and report shall conform to the applicable Department of Environmental Protection laws and regulations, and the applicable American Standards for Testing Materials document standards. Copies of all reports shall be made available to DECD.

If the Applicant and/or other parties for the subject properties within the project area have conducted Environmental Site Assessments, copies of such documents must be submitted to DECD.

fuelcellenergy

November 15, 2017

Dr. Dawn Leger
Grants Administrator
Bristol Development Authority
111 North Main Street
Bristol, CT 06010

Dear Dr. Leger:

I am writing in support of the City of Bristol's application for grant funding under the U.S. Environmental Protection Agency's 2018 Brownfield Cleanup Grant Program.

The City of Bristol is seeking to remediate the brownfield site located at 894 Middle Street. FuelCell Energy, Inc. (FCE) has entered into an option to lease agreement with the City to develop and construct an up to 18.5 MW project on the rear portion of the 894 Middle Street site, subject to the successful award of a power purchase agreement with Eversource through an anticipated competitive RFP to be conducted by DEEP pursuant to Section 10 of Public Act 17-144, An Act Promoting the Use of Fuel Cells for Electric Distribution System Benefits and Reliability and Amending Various Energy-Related Programs and Requirements.

The parcel is an ideal location for FCE's placement of fuel cells, and we hope that our bid to the DEEP will be successful. Concurrently, we are optimistic that the City's diligence in performing careful assessment and remediation planning will result in a successful application for a cleanup grant with US EPA. Together, our plan will enable the City to move contaminated soils to the rear of the parcel, which would otherwise be undevelopable because of the presence of a utility line right-of-way that isolates that portion of the property. The soils would be encapsulated using engineered controls in accordance with EPA and DEEP standards, and then FCE will install the fuel cells on concrete pads that will be permanently located on site.

We see this project as a positive for FCE and the City. It will be a catalyst that will enable the City to redevelop the larger parcel with frontage on Middle Street (State Route 229), accelerate necessary remediation to make the parcel commercially viable in a way that it has not been for the past 40 years, and support the project by adding to the property tax rolls through the lease agreement and site redevelopment. Additionally, the long-term benefits to the City, State, and Federal governments include the addition of clean energy to the grid.

Please feel free to contact me regarding FCE's partnership with the City of Bristol and the status of our RFP with DEEP. We look forward to working with the City of Bristol on this exciting project.

Sincerely,

Frank Wolak
Vice President Sales - Americas

Attachment C

Letters of Commitment from Community Organizations

(Section IV.C.3.3.c.ii.)

BRISTOL-BURLINGTON HEALTH DISTRICT
240 Stafford Avenue, Bristol, Connecticut 06010-4617
Tel. (860) 584-7682 • Fax (860) 584-3814

October 26, 2017

Dr. Dawn Leger
Grants Administrator
Bristol Development Authority
111 North Main Street
Bristol, CT 06010

Dear Dr. Leger:

I am writing in support of the City of Bristol's application for grant funding under the U.S. Environmental Protection Agency's 2018 Brownfield Cleanup Grant Program.

The Bristol-Burlington Health District, as the designated health agency for the City of Bristol, will assist the Bristol Development Authority in whatever capacity we can to asssure the safety and welfare of the residents of the City, especially those who reside in the area immediately adjacent to the remediation site. We can help gather data on the health of area residents and track the impact of the cleanup in the future, for reporting purposes.

This project is important for the public health impact on the City. The long-term effects of PCBs on the wetlands in the area, as well as on the well-being of those who live near the site, is unknown – but not worth gambling. Cleaning the land and putting it to productive use can only improve the overall well-being of the individuals who live, work, and play in the surrounding area.

My office is available to assist the City of Bristol and its contractors when they are ready to begin work on the site. We can assist in the review of the Health and Safety Plan and take any action necessary to secure the surrounding properties during remediation, should that be necessary.

Sincerely,

Charles I. Motes, Jr., M.S., M.P.H., R.S.
Director of Health

Central Connecticut Chambers of Commerce

one region. one voice.

October 27, 2017

Dr. Dawn Leger
Grants Administrator
Bristol Development Authority
111 North Main Street
Bristol, CT 06010

Dear Dr. Leger:

I am writing in support of the City of Bristol's application for grant funding under the U.S. Environmental Protection Agency's 2018 Brownfield Cleanup Grant Program.

The City of Bristol is seeking to remediate the brownfield site located at 894 Middle Street. The Greater Bristol Chamber of Commerce, a member of the Central Connecticut Chambers of Commerce, is a partner with the City of Bristol on several projects, most notably a manufacturing initiative to encourage vocational opportunities for young people and adult learners to fill vacant positions in local companies. The Bristol Development Authority and Bristol Adult Education have supported pilot programs and workforce training initiatives that have been critical since the workforce investment office and state-funded job placement programs are no longer supported by State funding.

The Chamber has 1,600 members and our network can be a useful communication tool for this project, assisting in the outreach to area businesses about the nature of the cleanup taking place on the site. We are especially interested in promoting the sustainable energy project that is part of the development proposed for the site, and believe that this will be a benefit for everyone in the region as well as the State.

We see this project as a positive for the City. This land has been dormant for far too long, and it can be part of a business boom on Rt. 229 that can benefit the surrounding area. Having a fuel cell facility at the rear of that parcel makes it more valuable, and the clean energy will benefit the entire city.

Please feel free to contact me about how we can assist the City of Bristol to support the workforce initiatives that are part of this cleanup plan, and to spread the word to our membership about the timetable for remediation. I can be reached at 860-584-4720 or C.Bombard@CentralCTChambers.org.

Sincerely,

Cindy Bombard

Cindy Bombard
President and CEO

Tunxis Community College

Education That Works For a Lifetime

Office of the President

November 15, 2017

Dr. Dawn Leger
Grants Administrator
Bristol Development Authority
111 North Main Street
Bristol, CT 06010

Dear Dr. Leger:

I am writing in support of the City of Bristol's application for grant funding under the U.S. Environmental Protection Agency's 2018 Brownfield Cleanup Grant Program.

Tunxis Community College has a long history of working with the City of Bristol on several projects, including workforce initiatives through our Tunxis @ Bristol location. We envision the brownfield remediation project at 894 Middle Street would be a unique opportunity for our students who are interested in careers in engineering and earth science to visit an active work site and see the many kinds of work being done there. From the oversight being done by the Licensed Environmental Professionals, to the hands-on work being performed by the remedial contractors, there are many facets of hazardous materials cleanup that can lead to vital careers. The Bristol Development Authority and Tunxis have worked cooperatively to support workforce training initiatives since the workforce investment office and state-funded job placement programs are no longer supported by State funding. We welcome the opportunity to provide this type of on-site experience for our students.

Please contact me to coordinate the plans for the site visit, and if I can do anything to support the City's application for EPA funding of this important program.

Sincerely,

James P. Lombella, Ed.D.
Interim President
Tunxis Community College

Attachment D

Applicant Eligibility

(Section III.B.2.)

Doc ID: 004917830003 Type: LAN
BK 1992 PG 976-978

NO.: HHB-CV-14-6027543-S	:	SUPERIOR COURT
CITY OF BRISTOL	:	J.D. OF NEW BRITAIN
VS.	:	AT NEW BRITAIN
BRISTOLVEST, LLC ET AL.	:	MAY 5, 2015

CERTIFICATE OF FORECLOSURE

TO ALL WHOM IT MAY BE CONCERNED, this certifies that certain Real Estate Tax Liens filed against the property of BRISTOLVEST, LLC, ENTERPRISE 229, DEVELOPMENT CORPORATION, and W.H. ASSOCIATES, LLC and/their or its predecessors in interest, on the list of October 1, 2005 in Volume 1736 at page 948 of the Bristol Land Records; on the list of October 1, 2006 in Volume 1776 at page 622 of the Bristol Land Records; on the List of October 1, 2007 in Volume 1805 at page 759 of the Bristol Land Records; on the list of October 1, 2008 in Volume 1839 at page 310; on the list of October 1, 2009 in Volume 1870 at page 520; on the list of October 1, 2010 in Volume 1901 at page 558; on the list of October 2011 in Volume 1938 at page 1109; on the list of October 1, 2012 in Volume 1968 at page 116; and an inchoate liens on the list of October 1, 2013 and October 1, 2014 having been foreclosed upon the complaint of the CITY OF BRISTOL against BRISTOLVEST, LLC, ENTERPRISE 229, DEVELOPMENT CORPORATION, and W.H. ASSOCIATES, LLC; the owners of the equity of redemption therein; in the Superior Court for the Judicial District of New Britain,

within and for the County of Hartford and State of Connecticut on the 6th day of April, 2015. The premises foreclosed are described in Schedule A attached hereto.

The time limit of redemption in said judgment of foreclosure has passed and the title to said premises became absolute in the said CITY OF BRISTOL on 5th day of May, 2015.

Dated at Plainville, Connecticut, this 5th day of May, 2015

THE PLAINTIFF,
CITY OF BRISTOL

By _____
Barry L. Thompson
Thompson, Volpone, and Donovan, LLC
49 Broad Street
P. O. Drawer 190
Plainville, Connecticut 06062-0190
Juris No. 18755
Tel No. (860) 747-5745
Fax No. (860) 793-2344

EXHIBIT A

Parcel One:

All those certain pieces or parcels of land located on the westerly side of Middle Street in the City of Bristol, County of Hartford and State of Connecticut, and shown as Lots 17-3 and 17-14-1 and a parcel of land situated on the westerly side of West Street in the Town of Southington, County of Hartford and State of Connecticut, said parcels being more particularly shown on a map or plan entitled:

> "Map of Lots #17-3 and #17-4-1 Middle Street, Bristol, Conn. and Lot #2 West Street Southington, Conn. to be purchased by Enterprise 229, Development Corporation Augustine F. Lepore, Jr. P.E. & L.S. Civil Engineering And Land Surveying 75 Meadow Street, Bristol, Ct 06010 (203) 589-2920 Drawn GAS Checked SLS Job No. 890414 HJL Map No. 6-B-180E Scale 1"=100' Date May 31, 1989 Sheet 1 of 1"

Which map is on file in the office of the Bristol Town Clerk.

Parcel Two:

All that certain piece or parcel of land, together with all improvements thereon, situated on the southerly side of Enterprise Drive and the westerly side of Middle Street, in the City of Bristol, County of Hartford and State of Connecticut, and shown as Lot No. 29 and a portion of Lot No. 17 to become part of Lot 29 on a map or plan entitled:

> "DEPARTMENT OF PUBLIC WORKS DIVISION OF ENGINEERING CITY OF BRISTOL, CONNECTICUT MAP SHOWING LOT 29 ENTERPRISE DRIVE & EASTERLY SEPARATION OF LOT 17 DATE JAN. 9, 1990 SCALE 1" = 40' SHEET 1 OF 1"

which map is recorded in the office of the Bristol Town Clerk, and is more particularly bounded and described as follows:

SOUTHERLY:	by land, now or formerly, of 229 Enterprise Development Corporation, 1,238.32 feet;
EASTERLY:	by Middle Street, 103.49 feet;
NORTHEASTERLY:	by the arc of the curve connecting Enterprise Drive and Middle Street a radius of 40.00, a Delta of 90 00' 00", a tangent of 40.00 and a Length of 62.83 feet;
NORTHERLY:	by Enterprise Drive, 1,136.89 feet; and
WESTERLY:	by other land, now or formerly, of the City of Bristol, 290.55 feet.

Attachment E

Threshold Criteria – Community Notification Documents

(Section III.B.11.)

ANALYSIS OF BROWNFIELD CLEANUP ALTERNATIVES
894 MIDDLE STREET
BRISTOL, CONNECTICUT
REM ID No. 12906

FOR:
City of Bristol
Bristol Development Authority
111 North Main Street
Bristol, CT 06010

BY:
Nobis Engineering, Inc.
122 Church Street
Naugatuck, CT 06770

NOBIS ENGINEERING, INC.

(800) 394-4182
www.nobiseng.com

Nobis Project No. 90680.01
November 2017

Nobis
Engineering a Sustainable Future

TABLE OF CONTENTS

FIGURES

1.0 INTRODUCTION

On behalf of the City of Bristol, Nobis Engineering, Inc. (Nobis), has prepared this Analysis of Brownfields Cleanup Alternatives (ABCA) for 894 Middle Street located in Bristol, Connecticut (Site). An Area Plan is provided as Figure 1 and a Site Plan is provided as Figure 2.

Initial assessments of the Site were completed in accordance with an EPA Brownfield Assessment Grant administered by the Naugatuck Valley Council of Governments. The Connecticut Department of Economic and Community Development (DECD) and the City of Bristol have appropriated additional assessment funds for Site characterization. In 2016, the DECD awarded the city a $1.3 million grant in support of environmental remediation to return this property to productive use. On November 3, 2016, based on an application submitted by the City of Bristol, the Site was accepted into the Connecticut Department of Energy and Environmental Protection's (CT DEEP's) Voluntary Remediation Program (VRP) under Connecticut General Statutes (CGS) 22a-133x.

Under EPA Brownfields Cleanup Grant agreement, the ABCA needs to include:

- Information about the site and contamination issues (i.e. exposure pathways, identification of contaminant sources, etc.), cleanup standards, applicable laws, alternatives considered, and the proposed cleanup.
- The evaluation of alternatives must include effectiveness, implementability, and the cost of the response proposed.
- The evaluation of alternatives must also consider the resilience of the remedial options in light of reasonably foreseeable changing climate conditions (e.g. sea level rise, increased frequency and intensity of flooding, and/or extreme weather events, etc.).
- The alternatives may additionally consider reduced volume of waste generated/disposed, reduced volume of materials taken to landfills, and recycling and re-using materials generated during the cleanup process to the maximum extent practical.
- The evaluation will include an analysis of reasonable alternatives including no action.
- The cleanup method chosen must be based on this analysis.

a Quality Assurance Project Plan (QAPP) and Community Relations Plan (CRP) be prepared. A QAPP, The CRP presents a plan for informing and obtaining input from the neighboring public at key milestones in the remediation process. A site specific QAPP was submitted to the EPA and approved in August 2014. A CRP will be submitted to EPA under separate cover.

1.1 SCOPE AND PURPOSE

Relatively low levels of PCBs (generally less than 10 mg/kg) have been distributed across the approximately 17-acre Site from the former operations of Laviero Metals. The objective of this application is to obtain the US EPA's approval to remediate the Site to meet industrial/commercial remedial thresholds for PCBs (i.e. PCBs less than 10 mg/kg or part per million). The remediation intends to meet the following objectives:

1. A primary objective is to mitigate seven areas where as-found PCB concentrations in soils exceed the state's Significant Environmental Hazard threshold of 15 mg/kg. These soils will be disposed at a permitted off-site disposal facility.

2. A primary objective is to excavate and dispose of soils containing as-found PCB concentrations in excess of 10 mg/kg to permitted off-site disposal facilities.

3. If project costs and regulatory approvals proposed under this plan allow, a secondary objective is to excavate and consolidate the majority of impacted soils containing PCBs at concentrations less than 10 mg/kg to a "Soil Consolidation Area" (SCA) located in a remote portion of the Site. Following remedial excavation, a large portion of the Site would meet residential criteria for PCBs. The remote western portion of the Site would consolidate impacted soils up to the industrial/commercial standards (10 mg/kg) and will be capped. The SCA would be the subject of an Environmental Land Use Restriction (ELUR); and,

4. Perform post-excavation soil sampling at alternate confirmatory sample densities than the 1.5 meter by 1.5-meter grid (or 5 foot by 5-foot grid), specified by 40 CFR 761.265. Based on the size of the impacted area and the results of previous PCB analyses, we propose variable confirmatory sampling grid sizes varying between 1.5-meter, 3-meter, and 9-meter.

2.0 SITE DESCRIPTION AND HISTORY

The Subject Site consists of approximately 17-acres of industrially-zoned property located in Bristol, Connecticut. No structures are currently located on-site, which is partially wooded and has unimproved access roads and clearings. As shown on Figure 2, existing Connecticut Light & Power (now Eversource) overhead electrical transmission lines roughly bisects the Site from the northwest to the southeast. Branches of the Eight Mile River are located along the west and southern boundaries of the Site. The Eight Mile River flows towards the southwest.

The Site is bounded to the north by Enterprise Drive, and Luiza's Diner (closed) and A Place to Grow Too Daycare; to the east by Middle Street and the main campus for ESPN; to the south by residences, wooded and wetland areas; and, to the west by wooded area and the Bristol Resource Recovery Facility.

From approximately 1955 until about 1987, Laviero Metals owned the Site and performed metal recycling operations. The business received and recycled scrap metal from all manner of suppliers. The scrap metals included oil filled capacitors and transformers. Based on prior reporting, there were three main handling areas (Receiving, Storage, and a Burn Pit). Surficial debris remaining from the former metal recycling processes has been noted throughout the Site including broken electrical insulators, ceramic pieces, metals, brick, and copper wire. Additional information about the status of the investigation and proposed remediation of the former Laviero Metals is summarized below.

3.0 CONCEPTUAL SITE MODEL

This section presents the Conceptual Site Model (CSM) for the Site. The CSM was developed based on data and evaluations presented in the Phase I Environmental Site Assessment (Phase I ESA) (GeoDesign, 2014) and the Phase III ESA report (Nobis, 2016). The CSM depicts the

relationships between the factors necessary to assess contaminant extent, fate, and migration including:

- Environmental setting;
- Site history and sources of soil contamination;
- Nature and extent of contamination; and
- Contaminant migration pathways, fate and transport.

3.1 SITE ENVIRONMENTAL SETTING

As shown on the USGS Topographic Map (see Figure 1) for the Bristol Quadrangle, the elevation of the Site is approximately 210 to 250 feet above mean sea level. Topographically, the Site slopes moderately to the south and west, toward the Eight Mile River. Based on regional topography and drainage considerations, groundwater flow beneath the Site is inferred to be in a southwesterly direction. Groundwater flow patterns are subject to change based on natural variations and man-made influences, including former underground utilities and drainage.

According to the CT Environmental Conditions Online database[1], the Site is located within the Eight Mile River drainage basin (5201-00). Groundwater at the Site is classified "GB". The Connecticut Department of Energy and Environmental Protection's (CT DEEP) Water Quality Standards (WQS) defines Class GB groundwater as being located within a historically highly urbanized area or an area of intense industrial activity and where public water supply service is available. Such ground water may not be suitable for human consumption without treatment due to waste discharges, spills or leaks of chemicals or land use impacts[2]. No aquifer protection areas were identified within a 1-mile radius of the Site.

The Eight Mile River is located on the southeastern and western portions of the Site and is designated a Class "B" surface water. Class B surface waters are known or presumed to meet criteria which support designated uses such as habitat for fish and other aquatic life and wildlife; recreation; navigation; and industrial and agricultural water supply.

Surficial materials (i.e. "unconsolidated materials below the top 0 to 18-inch layer of developed soil") over most of the Site are mapped to consist mainly of very coarse to fine sand, commonly in well-sorted layers. Surficial materials in the wetland area in the southeastern portion of the Site are described as floodplain alluvium overlying undifferentiated coarse sand and gravel deposits (a/sg). Floodplain Alluvium (a) consists of sand, gravel, silt, and some organic material, on the floodplains of modern streams. The texture of alluvium commonly varies over short distances both laterally and vertically, and is often similar to the texture of adjacent glacial deposits. Along smaller streams, alluvium is commonly less than 5 feet thick. The alluvium overlies Sand and Gravel (sg) composed of mixtures of gravel and sand within individual layers and as alternating layers. Bedding may be distorted and faulted due to post-depositional collapse. It is likely that some deposits within this unit consist of gravel or sand and gravel overlying sand. It is less likely that some of these deposits are sand (fluvial deposits or delta-topset beds).

According to the Bedrock Geologic Map of Connecticut (Connecticut Geological and Natural History Survey, 1985) obtained online (http://tmsc.org/geology/bedrock) bedrock under the Site

[1] http://ctecoapp1.uconn.edu/advancedviewer/

[2] State of Connecticut Department of Environmental Protection, "Water Quality Standards", Effective February 25, 2011 and April 12, 1996.

consists of New Haven Arkose. The New Haven Arkose is described as red, pink, and gray course-grained, locally conglomeratic, poorly sorted and indurated arkose, interbedded with brick-red micaceous, locally shaly siltstone and fine-grained feldspathic clayey sandstone. The depth to bedrock at Site is not known.

The City of Bristol GIS Database identified wetlands areas along the southern boundary Site and adjoining properties to the west and south. To support Site remediation, a wetlands survey and report were completed by David Lord, certified soil scientist and Civil1 of Woodbury, Connecticut.

The Site was not indicated on the CT DEEP's Natural Diversity Database (NDDB) as having threatened or endangered species. Flood data was obtained from the online Federal Emergency Management Agency (FEMA) Map Service Center[3]. According to FEMA, the Site is situated outside the 500-year flood zone. The area bordering the Site to the West is situated within Zone A of the Eight Mile River indicating no base flood elevations have been determined.

3.2 SUMMARY OF PRIOR ENVIRONMENTAL REPORTS

Prior environmental reports were reviewed as part of this ABCA. Pertinent findings and conclusions of the reports are summarized below.

3.2.1 Phase I ESA

Review of regulatory inspection reports for Laviero Metal's operations in the early 1980s identified compliance problems and releases to Site soils which resulted in enforcement actions. The CTDEP PCB Unit identified used transformers, oil filled capacitors, and other storage which was not in compliance with the regulations. Furthermore, Laviero Metals used open burning to remove insulation and other combustibles from metals prior to reclaim from the 1960s through the early 1980s. In January 1984, the CT DEP issued Administrative Order 3676. In July 1987, the USEPA issued Consent Agreement and Order TSCA-I-86-1015. The orders required that the facility be brought into compliance with environmental regulations and that the facility identify the degree and extent of soil and groundwater contamination.

The Phase I ESA identified that available documentation of remedial actions appeared to be incomplete. It was not clear that the orders were fully closed even though Laviero Metals performed potentially significant amounts of soil remediation at the Site. The record indicates that Laviero Metals assumed that the requirements of the two Orders had been met. We note that the environmental remediation and assessments were conducted prior to 1996, when the Connecticut Remediation Standard Regulations (RSRs) were finalized. Therefore, the remedial goals may have differed from current standards.

In March 2014, GeoDesign, Inc., issued a Phase I ESA report that identified six Recognized Environmental Conditions (RECs) at the Site. The locations of the RECs are shown on Figure 2.

REC-1: Former "Burn Area" – an area in the western portion of the Site where open burning was conducted to remove insulation from wires during metal reclamation operations. An unspecified amount of soil removal was completed in this area in the 1980s and 1990s.

---

[3] From Federal Emergency Management Agency website: http://msc.fema.gov/portal

REC-2: Former "Petroleum Stained Soil Area" – an area in the north-central portion of the Site where oils were reportedly released to the ground surface, possibly from electrical transformers brought to the Site for metals reclamation. An unspecified amount of soil removal was completed in this area in the 1980s and 1990s.

REC-3: Former Subsurface Storage and/or Disposal of Wastewaters – Wastewaters generated from a former incinerator scrubber, wire rinsing operation and floor cleaning in the northeast portion of the Site went to a 20,000-gallon settling UST and then to a septic tank. The structures are no longer present but there is no documentation about the removals.

REC-4: Former Chemical Storage and Use - A former building was located in the northeastern portion of the Site. Chemical storage included chlorinated solvents and oils in and around the former Site building, as documented by Fire Marshall records. Such storage and use suggest the possibility of vapor intrusion issues. No significant volatile organic contamination has been identified at this location based on prior sampling. The structures are no longer present but there is no documentation about the removal.

REC-5: Former Bulk Oil Storage Tanks - Underground and aboveground bulk storage tanks in or adjacent to the former Site building in the northeastern portion of the Site. No significant volatile organic contamination has been identified at this location based on prior sampling. The structures are no longer present but there is no documentation about the removal.

REC-6: Existing Solid Waste Debris Piles - Miscellaneous areas of surface disposal of debris containing concrete, metal, tires, and wood were observed. The source(s) of the debris is/are not known.

Based on the information obtained, the Site is an "Establishment", as defined by the Property Transfer Act (CGS 22a-134).

3.2.2 Contaminants of Concern

Based on the findings of the Phase I, the primary Contaminants of Concern (COCs) were identified as:

- PCBs located at all RECs but particularly at REC-1, REC-2 and REC-3;
- Volatile Organic Compounds (VOCs) at REC-4, REC-5, and REC-6;
- Extractable Total Petroleum Hydrocarbons (ETPH) at all RECs; and,
- Copper, Lead and Zinc at all RECs.

3.2.3 Phase II Assessment

A Phase II Assessment was conducted in accordance with an EPA-approved Quality Assurance Protection Plan (QAPP) (revised in August 2014). All samples for PCB analysis were submitted to Phoenix Environmental Laboratories of Manchester, Connecticut for PCB analysis by EPA Method 8082 using Soxhlet extraction.

During the Phase II Assessment, fifteen composite soil samples were selected for the analysis of PCBs. PCBs were identified in ten of the fifteen composite soil samples submitted. The as-found PCB concentrations ranged from 770 µg/kg to 390,000 µg/kg or 0.77 mg/kg to 390 mg/kg. Of the ten identified composited soil samples, five soil samples exceeded remedial criterion (R-DEC of 1 mg/kg).

3.2.4 Phase III Investigation - Delineation of PCBs

Phase III delineation sampling was performed primarily for PCBs during various sampling rounds in 2015 through February 2016. For the Phase III Investigation, a significant focus was placed on delineating the horizontal and vertical extent of PCB contamination on a Site-wide basis. Soil samples were designated based on their location within a 100-foot square grid and then by depth interval. Using vibratory drilling methods and hand augers, soil samples were generally collected at the following depth intervals: 0 to 0.5 fbg (Figure 3A), 0.5 to 1.5 fbg (Figure 3B), 1.5 to 3.5 fbg (Figure 3C), and 3.5 to 5.5 fbg (Figure 3D). Deeper interval samples (e.g. 3.5 to 5.5 fbg) were not typically analyzed if PCBs were not detected in the soil sample above it. The sampling and analyses were performed in accordance with the approved QAPP.

Sampling locations and results are shown on Figures 3A through 3E. A total of 542 soil samples were analyzed and the data compared to remedial requirements.

As shown on Figures 3A through 3D, PCBs were detected over much of the Site, particularly in Laviero Metal's operational areas including the former Burn Pit (REC-1), the former Petroleum Stained Area (REC-2), and along an unimproved road where Laviero transported materials from one area to another. The highest as-found concentration of PCBs in soil was 7,900 mg/kg in the north-central portion of the Site (near grid C-5 on Figure 3A).

Near surface soils obtained in the central, northwestern, and southeastern portions of the site have PCB concentrations exceeding both I/C-DEC (10 mg/kg) and SEH thresholds (30 mg/kg). As-found PCB in soil concentrations of greater than 30 mg/kg and within 18-inches of the ground surface were identified in seven areas of the Site. Shallow soil contamination with PCBs above 30 mg/kg exceeds the CTDEEP's Significant Environmental Hazard (SEH) notification threshold under CGS 22a-6u. The locations of the seven "SEH" Areas is shown on Figure 2. A Significant Environmental Hazard Notification was submitted to the CTDEEP. As a result of discussions with the CTDEEP, barriers were installed around the delineated SEH areas to prevent trespassers from inadvertently contacting the soils.

As shown on Figure 3C and 3D, soil samples obtained at depths greater than 1.5 fbg had sporadic PCB detections, the majority of which were significantly lower in concentration. There were no SEH or I/C-DEC exceedances and minimal exceedances of the R-DEC. The exception was in the southeastern corner of the Site, where elevated PCB concentrations (greater than 1 mg/kg but less than 10 mg/kg) have been identified in a low-lying outwash deposit that was formed from soils eroding from the area of the former Burn Pit (REC-1). PCB impacts in this area extend to a depth of approximately 5.5 fbg. Lower levels of PCBs are associated with some of the debris areas (REC-6).

General statistics of the Phase III PCB sample results can be summarized as follows:

Statistic	Total Number of Samples	Percent of Total
Total Samples Analyzed	542	---
Exceedance of SEH Threshold (30 mg/kg)	17	3%
Exceedances of I/C-DEC (10,000 ug/kg or 10 mg/kg)	34	6.3%
Exceedance of R-DEC (only) (1,000 ug/kg or 1 mg/kg)	137	25.3%
Detection without Exceedance of 1,000 ug/kg	48	8.9%
Samples with No PCBs Detected	357	65.9%

Aroclor	Number of Detects	Percentage of Total
PCB-1248	31	23.8%
PCB-1254	76	58.5%
PCB-1260	23	17.7%
Total Count	130	100.0%

The horizontal extent of PCB contamination was delineated on Figures 3A through 3D by manually extrapolating areas of PCB impacts to the nearest data point. The horizontal boundaries of the PCB Remediation Areas shown on the figures are bound by samples that were non-detected for PCBs.

3.2.5 SPLP Extractable PCBs

On April 11, 2017, Nobis obtained 14 soil samples for analysis of both total and extractable PCBs using the Synthetic Precipitation Leaching Procedure (SPLP). The objective of the sampling was to evaluate whether in-place soils containing total PCBs up to 10 mg/kg would leach PCBs at concentrations above the GB-PMC of 0.005 mg/l by SPLP. The samples were obtained in known areas of contamination at depths ranging from 0 to 0.5 fbg, except for samples obtained in the outwash area, located in the western portion of the Site. Because the outwash material is up to 5.5 feet thick, sample "Outwash 3" was obtained from three depth intervals: 0-0.5 ft, 0.5-1 ft, and 1-1.5 ft.

Total PCB concentrations ranged from 1,700 to 34,000 ug/kg in the fourteen samples analyzed. Twelve of these samples, with concentrations of PCBs ranging from 1,700 ug/kg to 15,000 ug/kg, were selected for additional analysis of SPLP extractable PCBs. The SPLP results were compared to the GB-PMC of 5 ug/l. The SPLP data can be summarized as follows:

- Of the twelve samples analyzed, "Sample Outwash 3" from a depth of 0.5-1 ft had SPLP extractable PCBs of 5.5 ug/l. This concentration exceeded the GB-PMC of 5 ug/l. No other exceedances of the GB-PMC were identified.
- Trace levels of SPLP extractable PCBs were detected in four of twelve samples with concentrations ranging between 0.5 to 2.1 ug/l.
- SPLP extractable PCBs were not detected in seven of the twelve samples, including sample "SEH-6 1" which had the highest total PCB concentration of 15,000 ug/l.

3.3 SAMPLING AND ANALYSIS FOR DIOXINS & FURANS

The US EPA requested an evaluation of the presence of dioxin as the result of Laviero Metals' historic practice of burning electrical components in an open Burn Pit (REC-1). Dioxin is a Contaminant of Concern, particularly near REC-1 Burn Area, because combustion of PCBs at lower temperatures than complete incineration, can result in the formation of dioxins and furans.

The sampling was conducted to evaluate the co-existence of PCBs, polychlorinated dibenzo-p-dioxins (PCDDs), and polychlorinated dibenzofurans (PCDFs). The results of dioxin testing (which are reported as concentrations of numerous congeners and homologs) were converted by Pace Analytical Services, Inc. of Minneapolis, Minnesota (Pace Analytical) to the Toxicity Equivalent (TEQ) of 2,3,7,8-TCDD, per World Health Organization Protocol. This is standard practice for normalizing PCDD and PCDF results in a sample to the toxicity of 2,3,7,8-TCDD, which is the most toxic of the PCDDs and PCDFs.

On February 17, 2016, Nobis personnel obtained five shallow soil samples, at locations inside, adjacent to, and outside the former Burn Area (REC-1). The samples were collected at the following grid coordinates: C.625-3.375, D.6-2.2, E.5-2.1, H.1-1.1, and D.25-9.15. Previous soil sampling identified PCB impacted areas located near the former Burn Pit (REC-1) and the Petroleum Stained Area (REC-2). Sample H1-1.1 was collected from a depth of 0 to 2 feet below grade because this area had been filled by soils eroding from the area of the former Burn Pit. The other four samples were collected at 0 to 0.5 fbg. Dioxin analyses were conducted by Pace Analytical in accordance with EPA Method 8290.

Because the RSRs do not have established remedial criteria for dioxins/furans, Nobis performed a review of literature for previously approved clean-up criteria. We also derived draft direct exposure criteria, based on the risk assessment formula provided in the RSRs. The following clean-up standards are provided for comparison purposes only and have not yet been submitted for regulatory approval:

Dioxin TEQ - Direct Contact Soil Screening Levels (assumes 2,3,7,8-TCDD TEQ)	Residential (ng/kg)		Commercial/Industrial (ng/kg)	
	Cancer	Non-Cancer	Cancer	Non-Cancer
USEPA RSLs (Nov. 2015)[4] (80 kg adult)	4.8	51	22	720
CT DEC[5] (70 kg adult BW)	4.7	48.6	44	4000

3.3.1 Dioxin/Furan Sample Results

Total PCB Aroclor results from the dioxin samples ranged from 7 to 4,200 mg/kg or ppm. The Dioxin TEQ results ranged from 13 to 520 nanograms per kilogram (ng/kg or ppt). The highest concentrations of both total PCBs (4,200 mg/kg) and Dioxin TEQ (520 ng/kg) was identified in sample C.625-3.375 which was obtained north of the former "Burn Pit" (REC-1). Three samples

[4] U.S. EPA's Regional Screening Levels, Nov. 2015. https://www.epa.gov/risk/regional-screening- levels-RSLs-generic-tables-november-2015 (accessed April 15, 2016).

[5] Calculated in accordance with RCSA 22a-133k-2(b)(5) for both carcinogenic and non-carcinogenic substances. The calculated remedial criteria have not been approved by the CTDEEP.

(D.6-2.2, E.5-2.1, and H1-1.1) collected from the vicinity of the REC-1 Burn Remediation Area had Dioxin TEQ ranging from 72 to 370 ng/Kg.

The total PCBs and Dioxin TEQ results of the five samples can be compared as follows:

		Sample Designation, Depth, Location Description & Result				
		C.625-3.375 0-0.5 fbg	D.6-2.2 0-0.5 fbg	E.5-2.1 0-0.5 fbg	H.1-1.1 0-2.0 fbg	D.25-9.15 0-0.5 fbg
Contaminant	Units	North of REC-1: Burn Pit	North of REC-1: Burn Pit	Within REC-1: Burn Pit	South of REC-1: Burn Pit	REC-2: Oil Stained Area
Total PCBs	mg/kg	4200	180	82	18	7
Dioxin TEQ[6]	ng/kg	520	370	72	200	13

All five analyzed soil samples were below the non-cancer based EPA Regional Screening Level (RSL) for Industrial/Commercial (I/C) use of 720 ng/kg and calculated CT DEEP I/C-DEC of 4,000 ng/kg. Four of five samples exceeded the cancer-based I/C-RSL of 22 ng/kg and calculated CT DEEP I/C-DEC of 44 ng/kg. The C.625-3.375 sample had the highest detected dioxin TEQ (520 ng/Kg), and is situated approximately 170 feet north of the REC-1 Burn Remediation Area.

3.4 OTHER CONTAMINANTS IN SOIL

As part of this remediation effort, a separate Remedial Action Plan will be prepared that identifies the means and methods for removing other Contaminants of Concern from the Site coincident with the PCB remediation.

The locations of other remedial criteria exceedances at the Site are shown on Figure 3E. In addition to PCBs in soil, ETPH and metals (specifically copper and lead) were detected above their respective I/C-DEC (lead and ETPH only) and R-DEC concentrations. As expected based on historical information, these exceedances are in the Former Burn Area (REC-1) in the southeast portion of the Site and the petroleum stained soil area (REC-2) in the central portion of the Site. There was a single ETPH exceedance in the northeast corner of the Site near the former 20,000-gal wastewater UST (REC-3). Generally, the ETPH and metals exceedances are horizontally co-located with PCB exceedances. Many of the ETPH and metals soil samples were collected from larger composited depth intervals (e.g. 0 to 39 inches below ground) so the vertical extent of these exceedances may need to be better determined.

In general, the exceedances of remedial criteria for other Contaminants of Concern co-exist with soils containing PCBs.

3.5 GROUNDWATER SAMPLING & RESULTS

In July 2016, Nobis issued a Phase II/III report that summarized the following groundwater assessment activities:

[6] Dioxin TEQ (2,3,7,8-TCDD Toxicity Equivalent)

Installation of five groundwater monitoring wells to provide a site-wide assessment of environmental impacts. Note that the wells were installed before PCB delineation sampling (Phase III) occurred. Sever pre-existing wells were found on-site.

At the time, the top of the PVC well pipes were surveyed relative to an arbitrary on-site vertical datum equal to 100 feet (MW-1 top of PVC). The data indicated that groundwater migrates in a westerly/southwesterly direction beneath the Site. This is consistent with the inferred southwesterly groundwater flow direction, based on regional drainage and topography.

Groundwater analytical results can be summarized as follows:

- Groundwater samples from MW-5 (located within the REC-2 excavation area) and MW-7 (located within the REC-1 excavation area) were analyzed for PCBs. No PCBs were detected. PCBs were identified in both areas in Phase II soil sampling, but not at high levels. The monitoring well located closest to the highest concentration of PCBs (UNK-MW-4) was and has been dry.
- Six monitoring wells were analyzed for VOCs. Trichloroethene was detected in the sample collected form MW-7 (1.3 ug/l). There were no exceedances of remedial criteria for VOCs.
- Six groundwater samples were submitted for dissolved RCRA-8 metals aluminum, copper, and zinc. Dissolved copper exceeded the SWPC (0.048 mg/l) in MW-8 at a concentration of 0.138 mg/l. No other dissolved metal exceedances were identified. High copper was also identified in the soils in the proximity of MW-8 located in the Former Burn Area.

In general, no significant impacts to groundwater quality were identified. This is consistent with prior sampling completed by others. Following remediation, additional groundwater assessment will be required.

3.6 CONTAMINANT FATE AND TRANSPORT

Based on the findings of the environmental assessments, direct disposal of contaminated scrap metals, inadvertent spills, and burning of materials have resulted in contamination of surficial soils at the Site. Former ASTs and USTs on the Site may have also contributed to spillage, leakage, and other releases of contaminants to soil. Historic deposition of contaminants through discharges, dumping, and erosion are the primary transport pathways. In addition, the Site is accessible, via the Eversource right-of-way, to all-terrain vehicles which are redistributing impacted soils. Dynamic hydrologic conditions, including storm events, may continue to cause redistribution of contaminants. Figure 4 provides an illustrative view of our Conceptual Site Model.

At least five factors have influenced the degree and extent of the surficial contamination observed at the Site:

1. In the 1980s and 1990s, former soil remediation efforts were conducted by the responsible party, as required by orders issued by the CT DEEP and the US EPA. The degree and extent of the remediation is poorly documented such that areas of soil removal and post-excavation soil results are unclear. The remedial efforts were completed prior to the establishment of the current numeric remediation standards for contaminants of concern.

   Based on the data, our CSM acknowledges that these remedial efforts likely removed many point sources and generally contaminated source areas from the Site. The contamination that remains is residual from these clean-ups, with a few exceptions where PCB concentrations

greater than 500 mg/kg have been identified and that were presumably outside of the limits of previous soil removal efforts.

2. Soil erosion has occurred in a sloped area in the southwestern portion of the Site such that an outwash deposit of PCB contaminated sand appears to have encroached into an adjacent wetland area. The depth of the contamination in this area extends to approximately 5.5-fbg, where the original grade and wetlands soils were encountered. Because of the well-drained sandy soils, significant deposition from water erosion has not been identified over other areas of the Site.

3. Trespassers on motorized all-terrain vehicles (ATVs) have actively used the Site over the last 20 years and created berms and other non-natural surface features. ATV access is primarily achieved via the electrical transmission line right of way, which passes through some significantly contaminated areas. Soils exhibiting PCBs more than 30 mg/kg have been fenced off to restrict further contact with these contaminated areas. In addition, warning signage has been posted around the perimeter and the interior of the property.

4. Although elevated concentrations of PCBs, metals, and ETPH were detected in the soil, these contaminants do not appear to have significantly impacted underlying groundwater quality. PCBs and ETPH exhibit low volatility, and have relatively low solubility in water. The PCBs and ETPH (organic contaminants) are readily sorbed to soil particles and humic matter. These organic contaminants can be mobilized by wind erosion or surface water runoff of surface soils. At depth, these contaminants exhibit very low solubility; therefore, are generally immobile and are unlikely to be mobilized by precipitation, infiltration and leaching.

5. Metals can be mobilized in the environment depending on the type of metal compounds present in the soil matrix. If the metal is a component of a soluble compound (i.e., salt), it can dissolve and migrate with precipitation runoff or infiltration into groundwater, or could be mobilized by wind erosion or runoff if adsorbed to particulate matter. If the metal is a component of a low solubility or insoluble compound (i.e., oxide, sulfide, etc.), then the metal ion adsorbed to particulate matter could be mobilized by wind erosion or surface runoff. At depth, low solubility metal compounds will generally be immobile under natural conditions. Based on the groundwater sampling to date, metals contamination is not a significant concern to groundwater.

4.0 APPLICABLE LAWS AND REGULATIONS

4.1 VOLUNTARY REMEDIATION PROGRAM

The Site was accepted into the VRP under CGS 22a-133x on November 3, 2016. The Site will proceed through the VRP until the property is remediated to the Connecticut Remediation Standard Regulations (RSRs). While CT DEEP has the option to oversee this project, generally a Licensed Environmental Professional (LEP) oversees the investigation and remediation of these types of Brownfield projects. In addition, there are no conditions (for example, affected drinking water wells) that would indicate that CT DEEP would take the lead.

This VRP program will include the following milestones:

- Characterizing to "prevailing standards and guidelines" with submission of Investigation Report(s) and LEP certification;

- The completion of a Remedial Action Plan (RAP) with public notice and LEP certification defining a remediation program meeting the requirements of the RSRs;
- Implementation of the remedy as defined in the RAP;
- As applicable, groundwater monitoring to demonstrate groundwater compliance; and,
- Submission of the Final Verification Report with LEP certification documenting that the remediation work has been completed to the RSRs.

4.2 REMEDIAL CRITERIA

Based on the Site environmental setting and land use, the applicable remedial standards for soils are the Residential Direct Exposure Criteria (R-DEC), Industrial/Commercial Direct Exposure Criteria (I/C-DEC) and the Pollutant Mobility Criteria for GB Groundwater (GB-PMC). The applicable remediation standards for groundwater are the Groundwater Protection Criteria (GWPC) and Surface Water Protection Criteria (SWPC).

The state and federal limits for total PCBs in soil are as follows:

- Residential Direct Exposure Criterion (R-DEC) = 1 mg/kg
- Industrial/Commercial Direct Exposure Criterion (I/C-DEC) = 10 mg/kg
- Pollutant Mobility Criteria for GB groundwater (GB-PMC) = 0.005 mg/L, as tested using either the Synthetic Precipitation Leaching Procedure (SPLP) or Toxicity Characteristic Leaching Procedure (TCLP)
- In accordance with Connecticut General Statutes Section 22a-6u, PCBs in soils at concentrations exceeding 30 mg/kg and within 18-inches of the ground surface represent a Significant Environmental Hazard condition.
- In wetland areas, the remedial target will be the Limit of Detection (LOD), which will be in the range of 15 ug/kg to 30 ug/kg, dependent on the percent solids of a particular sample and potential matrix interference. This limit is based on a discussion with Ms. Traci Iott of the CT DEEP's ecological risk assessment group and Mr. Greg Lawrence of Phoenix Environmental Laboratories.

The RSRs allow that inaccessible soils impacted by PCBs can be remediated to 25 mg/kg if the area meets the definition of an "other restricted area" as defined by 40 CFR 761.123. This definition requires the area to be at least 0.1 km from a residential/commercial area.

In accordance with RCSA 22a-133k-3, the remedial criterion for PCBs in groundwater in a GB groundwater area is the Surface Water Protection Criteria (SWPC) of 0.0005 mg/L.

4.3 INSTITUTIONAL CONTROLS

It is anticipated that one ELURs will be part of the approved remediation program for the Site. The purpose of an ELUR is to minimize the risk of human exposure to pollutants and hazards in the environment by preventing specific uses or activities at a property or a portion of a property. The ELUR permits the remedial goals for a property to be dependent on the exposure risk associated with its intended use.

In accordance with the RSRs, the use of an ELUR would be required to be part of the remedy if the remedy includes "inaccessible soil" which eliminates the direct exposure pathway and the

need to comply with the DEC. By defining the location, depth and type of materials left in the SCA on the western portion of the Site in the permanent notice on the deed, future potential exposure by construction workers and others will be prevented or controlled. This will allow for leaving materials such as the metals-containing fill in place. An ELUR may be appropriate to designate future use of the southwestern portion of the Site as Industrial/Commercial allowing the use of higher clean-up criteria.

5.0 ANALYSIS OF CLEANUP ALTERNATIVES

Based on the anticipated future land use, environmental conditions, contaminants of concern, and applicable regulations identified above, various options for remediation were evaluated.

5.1 ENVIRONMENTAL LAND USE RESTRICTION

Institutional controls such as an ELUR are allowed for commercial/industrial sites to 1) define 'environmentally isolated soil', 2) define 'inaccessible soil', and 3) restrict the future use of a property. ELURs require property owner approval. ELURs relevant to all or a portion of the Site are summarized as follows:

- Industrial/Commercial Use: An ELUR can be attached to the Site to restrict the subject properties to industrial/commercial (IC) use. This ELUR would reduce the theoretical exposure to receptor populations and therefore will allow the application of IC/DEC for soil, I/C-GVC for ground water and the I/C soil vapor volatilization criteria for soil vapor. This ELUR is defined in the Regulations of Connecticut State Agencies (RCSA) Sections 22a-133k-3 (c) (2), 22a-133k-2 (b) (2) (A), and 22a-133k-3 (c) (3) (A).

- Inaccessible Soil: An ELUR defining 'inaccessible soils' for soils beneath a building, or under certain conditions (4 feet below grade or 2 feet below pavement or polluted fill soil immediately below pavement with metal contamination that is less than 2 times the RDEC) that exceed the DEC can be obtained. This ELUR would allow soil with concentrations above the DEC at these locations to remain because the exposure pathway is incomplete. This ELUR would require appropriate soil management activities if future excavation was to occur at these defined locations. This ELUR is defined in RCSA Section 22a-133k-2 (b) (3).

The CT DEEP has developed a prescriptive process to obtain an ELUR that includes submittal of an application, an A-2 survey that identifies the areas where the ELUR(s) are proposed, and the preparation of a decision document in which the rationale for the use of an ELUR is presented. Following CT DEEP approval and a public notice period, the ELUR will be recorded on the deed. The ELUR is typically submitted for CT DEEP approval following the completion of the remedial actions.

5.2 EVALUATION OF REMEDIAL OPTIONS

Our evaluation of remedial options focused on the amount of soils containing various as-found concentrations of PCBs and the federal and state regulatory requirements that apply. State remedial standards have differing requirements that apply to soils containing greater than: 1 mg/kg, 10 mg/kg, and 30 mg/kg (or parts per million). EPA regulations apply more directly to PCB

Remediation Wastes and have varying thresholds and requirements that apply to concentrations greater than 1 mg/kg, 10 mg/kg, and 50 mg/kg.

The cost for the removal and disposal of varying concentrations of PCB contamination soils, estimated soil volumes and weights, and additional costs (verification sampling, groundwater monitoring, engineered controls etc.) were estimated based on the as-found PCB concentrations. For the purposes of this plan, and to be conservative with respect to PCB remediation waste handling and disposal, the CT DEEP's SEH threshold of 30 mg/kg was applied as the equivalent of the EPA's requirements for PCB remediation wastes containing greater than 50 mg/kg. The estimated remedial costs for various scenarios are itemized and are generally summarized below.

5.2.1 Alternative #1 Off-Site Disposal of PCBs Greater Than 30 mg/kg

This alternative includes the excavation and disposal off-site of an estimated 703 tons of contaminated soils with PCB concentrations above and including 30 mg/kg (the SEH limit) and then capping, environmentally isolating, and on-site management of contaminated soils with PCBs greater than 1 mg/kg and up to 29 mg/kg, in accordance with a presumed Engineered Control Variance approval from the CT DEEP. The anticipated regulatory requirements and cost considerations for this option include:

1. Preparation of applications and approvals of risk-based closure, remedial action plans, wetlands permitting, and public notice;
2. Preparation of an application for an Engineered Control Variance for anticipated approval by the CT DEEP, including estimated costs for financial assurance, maintenance and monitoring for 30 years;
3. Remedial earthwork and off-site disposal of soils containing PCBs greater than 30 mg/kg. Due to regulatory permitting requirements, multiple disposal facilities may be required;
4. Construction of a 1-acre landfill cap (assumed flexible membrane liner) to render soils containing PCBs less than 30 mg/kg environmentally isolated;
5. Preparation of Environmental Land Use Restrictions for the western portion of the Site to restrict residential use and permit the isolation of PCB containing soils;
6. Closure verification soil sampling and reporting; and,
7. Closure confirmation groundwater monitoring.

This cost is estimated to be approximately $1,531,466, pending final approval of the remediation plan and receipt of contractor bids.

5.2.2 Alternative #2 Off-Site Disposal of PCBs Greater Than 10 mg/kg

This alternative includes the excavation and disposal off-site of an estimated 703 tons of contaminated soils with PCB concentrations above and including 30 mg/kg (the SEH limit); excavation and off-site disposal of an estimated 1,323 tons of soil with PCB concentrations above and including 10 mg/kg; and, then consolidating, capping, rendering environmentally inaccessible contaminated soils with PCBs greater than 1 mg/kg and up to 10 mg/kg in an on-site SCA. The anticipated regulatory requirements and cost considerations for this option include:

1. Preparation of applications and approvals of risk-based closure, remedial action plans, wetlands permitting, and public notice;

2. Remedial earthwork and off-site disposal of approximately 703 tons of soils containing PCBs greater than 30 mg/kg. Excavation and off-site disposal of an estimated 1,323 tons of soil containing PCB concentrations greater than 10 mg/kg and less than 30 mg/kg. Due to regulatory permitting requirements, multiple disposal facilities may be required;
3. Construction of a SCA to accept soils with PCB concentrations up to 10 mg/kg. These soils would be rendered environmentally inaccessible (but not isolated) per the CTDEEP. Such a remedy would not require an approved Engineered Control Variance or related financial assurance obligations;
4. Preparation of Environmental Land Use Restrictions for the western portion of the Site to restrict residential use and permit the isolation of PCB containing soils;
5. Closure verification soil sampling and reporting; and,
6. Closure confirmation groundwater monitoring.

This option is anticipated to cost approximately $1,429,709, pending final approval of the remediation plan and receipt of contractor bids.

5.2.3 Alternative #3 Off-Site Disposal of PCBs Greater Than 1 mg/kg But Less Than 10 mg/kg

This alternative includes the excavation and disposal off-site of an estimated 703 tons of contaminated soils with PCB concentrations above and including 30 mg/kg (the SEH limit); the excavation and on-site capping of up to 17,150 tons of soils containing PCB up to 10 mg/kg (Option 3A) or the excavation and off-site disposal of 17,150 tons of the same PCB-contaminated soils (Option 3B).

To ensure removal of impacted soils to the remedial objective of less than 1 mg/kg, soils would be excavated from the entire 5.6-acre area of PCB impact to an average depth of 2-feet below grade. This level of off-site disposal is intended to remove residual PCBs remaining in soils above the lowest remedial threshold of 1 mg/kg. The anticipated regulatory requirements and cost considerations include:

1. Preparation of applications and approvals of risk-based closure, remedial action plans, wetlands permitting, and public notice;
2. Remedial earthwork and off-site disposal of 703 tons of soils containing PCBs greater than 30 mg/kg and excavation, off-site disposal of an estimated 18,150 tons of soil containing PCB concentrations greater than 1 mg/kg and up to 30 mg/kg off-site or off-site disposal of soils containing PCBs from 10 mg/kg to 30 mg/kg and the on-site consolidation of remaining soils containing PCBs above 1 mg/kg. Due to regulatory permitting requirements and tipping fees, multiple disposal facilities would be required;
3. Closure verification soil sampling and reporting; and,
4. Closure confirmation groundwater monitoring.

The estimated cost to consolidate contaminated soil in an on-site SCA is estimated to be $2,026,459 (Option 3A). Due to the large volume of soil to be rendered inaccessible and Site physical constraints (easements, wetlands, etc.), multiple SCAs may be needed.

The cost for disposal of 17,150 tons of soil containing as-found PCBs above 1 mg/kg is estimated to be approximately $3,125,086 (Option 3B). No land use restrictions or other administrative controls would be required upon successful removal of PCB contaminated soils above 1 mg/kg.

5.3 SELECTED REMEDIAL OPTION

Based on the considerations summarized above and the estimated cost implications of various remedial options, the selected remedial option, Alternative #2, includes removal and off-site disposal of all soils containing PCBs equal to or greater than 10 mg/kg (estimated 2,026 tons), as summarized above in Section 5.3.2. The proposed remediation areas are shown on Figure 5. Under the selected scenario, approximately 4,034 cubic yards of soils with as-found PCB concentrations below 10 mg/kg would remain on-site and be rendered inaccessible and/or isolated under a fuel cell energy park or other another industrial use. An ELUR would be placed on the property deed to prevent residential uses of the property in perpetuity. The Site is currently zoned for commercial purposes.

Alternative #2 described in Section 5.3.2 is the most cost-effective ($1,429,709) and efficient remedial solution and supports industrial/commercial reuse. If additional volumes of contaminated soils were encountered, the volume of the SCA could be expanded. The SCA would be constructed to conform with regulatory requirements. In this case, an Environmental Land Use Restriction would be applied to the property deed record to render the soils inaccessible in perpetuity and to restrict residential use. The reuse of the polluted soil will be completed consistent with Section 22a-133k-2(h)(2) of the RSRs (Use of Polluted Soil and Reuse of Treated Soil). Consolidation and on-site beneficial reuse of the bulk of lightly contaminated soils is:

a. Protective of human health and the environment;
b. Meet regulatory requirements; and,
c. Meets the requirements of the ABCA evaluation that must consider reduced volume of waste generated/disposed, reduced volume of materials taken to landfills, and recycling and re-using materials generated during the cleanup process to the maximum extent practical.

The consolidation of soils contaminated with PCVs less than 10mg/kg requires both EPA and CT DEEP approval.

6.0 PROPOSED FUTURE DEVELOPMENT

The eastern two-thirds of the Site (from and including the overhead Eversource easement to Middle Street) will be remediated to meet industrial/commercial standards for PCBs (less than 10 mg/kg) and will be made available for commercial development. The most remote western portion of the Site will be remediated to meet industrial/commercial standards for PCBs (less than 10 mg/kg) and may also be used to consolidate soils containing PCBs. These soils will be placed in a SCA that can be designed to store between 4,050 to 5,500 cubic yards of soils in place.

7.0 AUTHORIZATION AND IMPLEMENTATION

The selected alternative, Alternative # 2 – off-site disposal of PCBs greater than 10 mg/kg and ELUR, will allow for redevelopment of the Site while meeting state and federal regulations and protecting human health and the environment. The implementation plan for the selected alternative consists of the following steps:

- Submit ABCA and CRP to EPA Region 1 for review and comment. Submit revised PCB Risk Based Cleanup Application to EPA Region 1 for review and comment. Complete documents to EPA satisfaction and complete public notice requirements.

- Prepare the Remedial Action Plan (RAP) for the Site. Perform public notice as required in the VRP and Risk Based Cleanup Application. Submit the RAP with LEP certification and documentation of public notice to CTDEEP.

- Implement the RAP and conduct hot spot soil excavation as specified. Conduct confirmatory sampling to the requirements of the RSRs and the QAPP. Characterize the waste as required by the QAPP and facility acceptance requirements. Transport waste soils to disposal facility and backfill with clean fill. Construct the SCA and place PCB soils less than 10 mg/kg above the high-water table. Cap the SCA area. Prepare report documenting all remedial and confirmatory work.

- Conduct four quarters of groundwater monitoring to the requirements of the RSRs and QAPP to confirm soil removal impact on groundwater (as necessary).

- Prepare the ELUR application to make the SCA industrial/commercial and to render soils in this area inaccessible. The application includes an A-2 survey, identification of the areas where materials remain under the cap, and the preparation of a decision document in which the rationale for the use of an ELUR is presented. Following CTDEEP approval and a public notice period, the ELUR will be recorded on the deed.

- Prepare the Final Verification Report documenting the remedial process and accompanying form certifying completion by the LEP. Submit the report to CT DEEP for review, comment, and finalization.

COMMUNITY RELATIONS PLAN
FORMER LAVIERO METALS
894 MIDDLE STREET
BRISTOL, CONNECTICUT
REM ID No. 12906

FOR:
City of Bristol
Bristol Development Authority
111 North Main Street
Bristol, CT 06010

BY:
Nobis Engineering, Inc.
122 Church Street
Naugatuck, CT 06770

NOBIS ENGINEERING, INC.

(800) 394-4182
www.nobiseng.com

Nobis Project No. 90680.01
November 2017

Nobis
Engineering a Sustainable Future

TABLE OF CONTENTS

Page

1.0 SCOPE AND PURPOSE

The purpose of the Community Relations Plan (CRP) is to describe the strategy to address the needs and concerns of City of Bristol residents potentially affected by the proposed cleanup of environmental contamination at the former Laviero Metals Facility located at 894 Middle Street in Bristol, Connecticut. The CRP outlines how the City of Bristol has involved and will continue to involve affected residents, City officials, and local organizations in the decision-making process regarding the environmental cleanup at the site.

Involved residents are essential to the success of this project. Their comprehensive understanding of the Site area will inform the project strategy and outcomes, ensuring the efficacy of environmental cleanup and redevelopment of the Site for future development.

2.0 SPOKESPERSON AND INFORMATION REPOSTORY

The spokesperson for this project is:

Dawn Leger, PhD
Grants Administrator
City of Bristol
Bristol Development Authority
111 North Main Street
Bristol, Connecticut 06010

The Information Repository is located at the Bristol Development Authority office at the address indicated above. Documents are available for public viewing Monday through Friday 8:30 am to 5:00 pm. All public meetings will be held at Bristol City Hall, unless otherwise noted.

3.0 SITE DESCRIPTION

A full description of the site history and use and information about the status of the investigation and proposed remediation of the Site are included in the Phase I, Phase II/III, and the Application for Risk-Based Cleanup. These reports and other pertinent documents are available for public review at the Information Repository.

3.1 SITE LOCATION

The Site is bounded to the north by Enterprise Drive, Luiza's Diner (now closed), and A Place to Grow Too Daycare; to the east by Middle Street and the main campus of ESPN; to the south by wooded and wetland areas followed by residences; and to the west by wooded area and the Bristol Resource Recovery Facility. The Site is located within a mixed commercial and residential area of Bristol.

3.2 HISTORY OF SITE USE

The Subject Site consists of approximately 17-acres of industrially-zoned property located in Bristol, Connecticut. No structures are currently located on-site, which is partially wooded and has unimproved access roads and clearings. Existing Connecticut Light & Power (now Eversource) overhead electrical transmission lines roughly bisect the Site from the northwest to the southeast. Branches of the Eight Mile River are located along the west and southern boundaries of the Site. The Eight Mile River flows towards the southwest.

From approximately 1955 until about 1990, Laviero Metals owned the Site and performed metal recycling operations. The business received and recycled scrap metal from all manner of suppliers. The scrap metals included oil filled capacitors and transformers. Based on prior reporting, there were three main handling areas (Receiving, Storage, and a Burn Pit). Surficial debris remaining from the former metal recycling processes has been noted throughout the Site including broken electrical insulators, ceramic pieces, metals, brick, and copper wire.

3.3 NATURE OF THE THREAT TO PUBLIC HEALTH AND ENVIRONMENT

Prior reports include Phase I, Phase II, and Phase III Environmental Site Assessments and a PCB Risk-Based Cleanup Application. The reports have been submitted to the US Environmental Protection Agency (US EPA) and the Connecticut Department of Energy and Environmental Protection (CT DEEP). These reports summarize in detail the status of environmental investigations at the Site. The reports are available for public review at the Information Repository identified above in Section 2.0.

Based on the findings of the prior environmental assessments, direct disposal of contaminated scrap metals, inadvertent spills, and burning of materials have resulted in contamination of surficial soils at the Site. The primary contaminant of concern is polychlorinated biphenyls (PCBs) which were released from scrap electrical equipment that was stored prior to recycling. Petroleum hydrocarbons (ETPH), volatile organic compounds (VOCs), copper, lead, and zinc are also present. Historic deposition of contaminants through discharges, dumping, and erosion are the primary transport pathways. The Site is accessible via the Eversource right-of-way to all-terrain vehicles that are redistributing PCB-impacted soils. Storm water drainage and wind erosion may also cause redistribution of contaminants.

On November 3, 2016, the Site was accepted into the state's Voluntary Remediation Program (VRP) under CGS 22a-133x. The Site will proceed through the VRP until the property is remediated in accordance with criteria established by the Connecticut Remediation Standard Regulations (RSRs). Per the VRP, a Connecticut Licensed Environmental Professional (LEP) will oversee the remediation of the Site following a series of milestones complying with the RSRs. This will include remediation of the Site including soil removal, confirmatory soil sampling, soil isolation and recording of an Environmental Land Use Restriction (ELUR), groundwater monitoring, and any other approaches subject to CT DEEP and US EPA approval.

4.0 COMMUNITY BACKGROUND

The City of Bristol has a long history of manufacturing including clock making, brass products, primary and fabricated metals, machinery, and automotive parts. By 1995, the majority of significant manufacturing businesses left the area, which resulted in vacant, underutilized, and contaminated properties throughout the City.

4.1 COMMUNITY PROFILE

The City of Bristol is included on the Connecticut Department of Economic and Community Development's list of "Distressed Municipalities" in 2017. As such, the community is in the fourth quartile of the state in terms of 1) per capita income, 2) adjusted equalized net grand list per capita, 3) equalized mill rate, 4) per capita aid to children receiving Temporary Family Assistance Program benefits, and 5) unemployment rate.

The total population of Bristol was approximately 60,500 people between 2011 and 2015 according to the Connecticut Economic Resource Center. Approximately 12.3% of the population are people of color, the poverty rate is 10.4%, the median household income is $61,478, and the unemployment rate is 9.2% (Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimate).

4.2 CHRONOLOGY OF COMMUNITY INVOLVEMENT

The City has engaged Nobis Engineering to develop a PCB Risk-Based Cleanup Application and has been in contact with EPA and CT DEEP regarding the proposed site remediation alternatives costs and objectives. An "Analysis of Brownfield Clean-up Alternatives" (ABCA) was prepared by Nobis and is available for review.

4.3 KEY COMMUNITY CONCERNS

To date, there have been no direct public comments to the City concerning the proposed cleanup. The City will continue to provide information and seek public comment, and will address any concerns and requests for information in a timely manner. Public information meetings will be held to discuss the cleanup plan, cleanup progress, and the final cleanup results. Notification of the meetings will be posted on the City of Bristol website and via press release.

4.4 BENEFIT TO TARGETED COMMUNITY

The community will no longer be exposed to the risk of on-site contact with PCBs and other identified contaminants of concern. The investment by the EPA via grant money will help realize a favorable outcome for the City of Bristol and Bristol residents and return an unproductive vacant site to active use. Cleanup of soil contamination will protect groundwater quality and surface water quality of the Eight Mile River and associated wetlands.

5.0 CONTINUED COMMUNITY INVOLVEMENT

The Analysis of Brownfield Cleanup Alternatives (ABCA) will be available for review at the Information Repository in November 2017. The City will accept public comment on the draft ABCA for a period of 30 days from the date of availability. All written comments received within the 30 day comment period as well as those received during public meetings will be considered by the City and its environmental consultant for inclusion into the final ABCA. Additional public meetings will be held at during the project to provide information, answer questions, and receive comments on project progress. A final public meeting will be held at the conclusion of remediation. Meetings will be scheduled in the early evening to accommodate the needs of working families. The meetings will be held at Bristol City Hall unless otherwise noted.

6.0 PROPOSED PROJECT SCHEDULE

The following represents the proposed project schedule:

- November 2017 Public Information Meeting Regarding ABCA
- November 2017 – EPA Approval of the PCB Risk-Based Cleanup Application
- December 2017 – Contractor Bidding
- March 2018 – Contractor Mobilization
- May 2018 – Contractor Demobilization

The Bristol Press
Classi

BUSINESS HO

Legals

LEGAL NOTICE

NOTICE IS HEREBY GIVEN that a public hearing will be held by the Bristol Zoning Commission in Bristol City Hall, 111 North Main St., on Wednesday, November 8, 2017, at 7:00 P.M. to hear and consider the following applications:

1. Application #2261 - Proposed amendment to the Zoning Regulations to increase the allowable square footage for signs that identify a public or semi-public facility; Craig Yarde, applicant.

2. Application #2265 - Special Permit to remove earth materials at 165 Warner St.; Assessor's Map 55, Lot 49; R-25/OSD (Single-Family Residential/Open Space Development) zone; Daniel Sutula, applicant.

Interested persons may attend and speak at this public

Legals

Notice of Public Meeting

The Bristol Development Authority will hold a PUBLIC MEETING on Thursday, November 2, 2017 at 6:00 p.m. in the First Floor Meeting Room of Bristol City Hall, 111 North Main Street, Bristol, CT 06010. The City of Bristol hereby gives notice of its intention to apply for grant funds from the U. S. Environmental Protection Agency to conduct clean-up activities at 894 Middle Street in Bristol, CT. The proposed remediation will include the removal of contaminated soils impacted by polychlorinated biphenyls PCBs. A copy of this grant proposal and the draft Analysis of Brownfield Cleanup Alternatives (ABCA) is available for review and comment at the Bristol Development Authority, 111 North Main Street, Bristol, CT 06010.

Legals

STATE O
COURT
R
Pro
DISTR

NOTIC
INSOL

E
RAYM
LATE
D
(

Pursuant
Andre D.
hearing w
mine whe
tate is ins
sented in
file at the
Said CO
wherein t
may affe
any, will b
of Probat
enue,
06010-46
20, 2017.

By Order

894 Middle Street Brownfield Cleanup
PUBLIC MEETING
November 2, 2017
SIGN-IN SHEET

NAME	ADDRESS

Slide Presentation at

Public Meeting

Nov. 2, 2017

Bristol CONNECTICUT All Heart

Brownfield Remediation
894 Middle Street, Bristol

Analysis of Brownfield Clean-up Alternatives
November 2, 2017

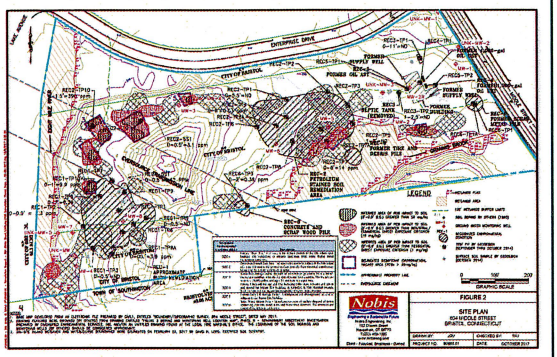
This meeting is one of the public participation goals for notifying stakeholders and obtaining input on the remediation plans.

Public money is at work in your community.

Aerial Photograph of 894 Middle Street

Why are we here?

- J. Laviero Metals Co. operated a metal reclamation business until 1977 on this 17-acre parcel. Due to CTDEEP and EPA orders, the facility closed and initiated clean-up in 1987.
- There has been no economic development of the site in 40 years. The City took ownership in 2015.
- Phase I & II Environmental Assessments done with EPA funding through VCOG. Contamination was identified.
- Phase III Assessment, permitting and Risk-Based PCB Clean-up Approval has been funded by DECD. Additional funds added by City to satisfy EPA's request for further testing.
- The City of Bristol successfully applied for and has received a clean-up grant for $1.3 million from the Department of Economic and Community Development.
- Is this enough money to complete the remediation?

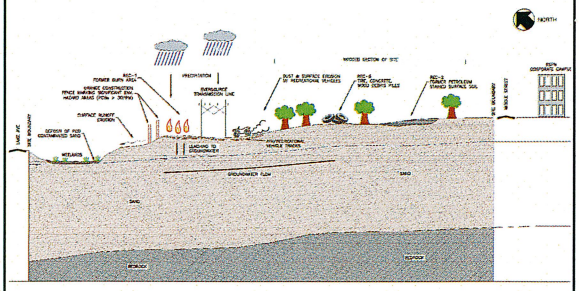


Significant Environmental Hazard

An SEH Report was filed with DEEP:

- PCB concentrations in shallow soil exceed the CTDEEP's SEHN criterion of 15 ppm in seven locations.
  - The contamination is limited to within 18" of the ground surface.
  - The seven areas are fenced off and signs have been posted. Police patrols have been increased to reduce ATV use.

Conceptual Site Model



What's Next?

- The City has entered into the CTDEEP's Voluntary Remediation Program and Municipal Liability Relief Program.
- We are working closely with EPA's PCB Coordinator and CTDEEP's Remediation and Brownfields Programs to coordinate the cleanup.
- We have received permit approvals from the Army Corps of Engineers, Bristol Wetlands and Southington Wetlands Commissions.
- Additional funding is being requested to minimize the costs to the community.

Proposed RAP

- The City proposes to remove soils with concentrations of PCBs greater than 10 ppm (the industrial/commercial standard) under a risk-based cleanup approval from EPA.
- This scenario requires the excavation and off-site disposal of approx. 1,351 cubic yards of PCB contaminated soil.

Estimated Areas of PCB Impact by Concentration Range

Remediation Phase	Range of PCB Concentration In Soil	Estimated Affected Area (acres)	Average Estimated Affected Depth (ft)	Estimated Volume (cu yd)	Estimated Volume with 25% Contingency (cu yd)	Estimated Mass (tons) (Mass = 1.5 tons/cu yd)
IV	Bristol/ Southington Wetlands Outwash Area. Excavate PCBs to ND	0.22	5.5	1,952	2,440	3,660
IV	>1 ppm but <10 ppm	1.93	1	3,114	3,892	5,838
III	>10 ppm but <30 ppm	0.35	1.25	706	882	1,323
II	Hotspot Soils > 30 ppm	0.31	0.75	375	469	703

Remedial Cost Estimate to Remove PCB Soils Greater 1 ppm ~$3.4 million

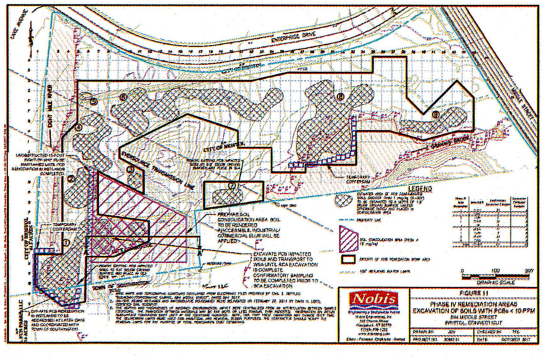
✓ **Remedial Cost Estimate to Remove PCB Soils Greater than 10 ppm ~$1.3 million**

Remedial Cost Estimate to Remove Soils Greater than 50 ppm ~$1.5 million
(Includes Eng. Control Variance and related requirements)

On-site "Soil Consolidation Area"

- An estimated 6,300 cubic yards of contaminated soil containing PCBs greater than 1 ppm and less than 10 ppm will be excavated, consolidated and capped in the rear (west side) of the parcel.
- This "Soil Consolidation Area" would be subject to an Environmental Land Use Restriction (ELUR) preventing residential use and disturbance in perpetuity.

Proposed FuelCell Park



Proposed Redevelopment Activities

- Potential FuelCell Energy Park would cap the Soil Consolidation Area – natural gas fired fuel cells connected to the adjacent CL&P power line for Clean Energy.
  (Subject to State Siting Council Approval)

- This would be a low occupancy, secure facility similar to Bridgeport Energy Park.
- Land Lease – City of Bristol owns the land. FuelCell Energy pays to develop the infrastructure and pays for leased property.

Use of Soil Consolidation Area

FuelCell Park in Bridgeport

THE END!

... ANY QUESTIONS ?

OMB Number: 4040-0004
Expiration Date: 10/31/2019

Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: 11/15/2017

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: City of Bristol, CT

* b. Employer/Taxpayer Identification Number (EIN/TIN): 06-6001866

* c. Organizational DUNS: 0606657830000

d. Address:

* Street1: Bristol City Hall
Street2: 111 North Main Street
* City: Bristol
County/Parish:
* State: CT: Connecticut
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 06010-8188

e. Organizational Unit:

Department Name: Bristol Development Authority

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix: Dr.
* First Name: Dawn
Middle Name:
* Last Name: Leger
Suffix:

Title: Grants Administrator

Organizational Affiliation: City of Bristol

* Telephone Number: 860-584-6191
Fax Number:

* Email: dawnleger@bristolct.gov

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.818

CFDA Title:

Brownfields Assessment and Cleanup Cooperative Agreements

*** 12. Funding Opportunity Number:**

EPA-OLEM-OBLR-17-09

* Title:

FY18 GUIDELINES FOR BROWNFIELDS CLEANUP GRANTS

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Cleanup of 894 Middle Street Brownfield

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: CT-1 * b. Program/Project: CT-1

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 12/04/2017 * b. End Date: 10/31/2018

18. Estimated Funding ($):

* a. Federal	200,000.00
* b. Applicant	0.00
* c. State	1,338,509.00
* d. Local	0.00
* e. Other	350,000.00
* f. Program Income	0.00
* g. TOTAL	1,888,509.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: Mrs. * First Name: Ellen

Middle Name: A.

* Last Name: Zoppo-Sassu

Suffix:

* Title: Mayor

* Telephone Number: 860-584-6250 Fax Number:

* Email: mayorsoffice@bristolct.gov

* Signature of Authorized Representative: Dawn L Leger * Date Signed: 11/15/2017